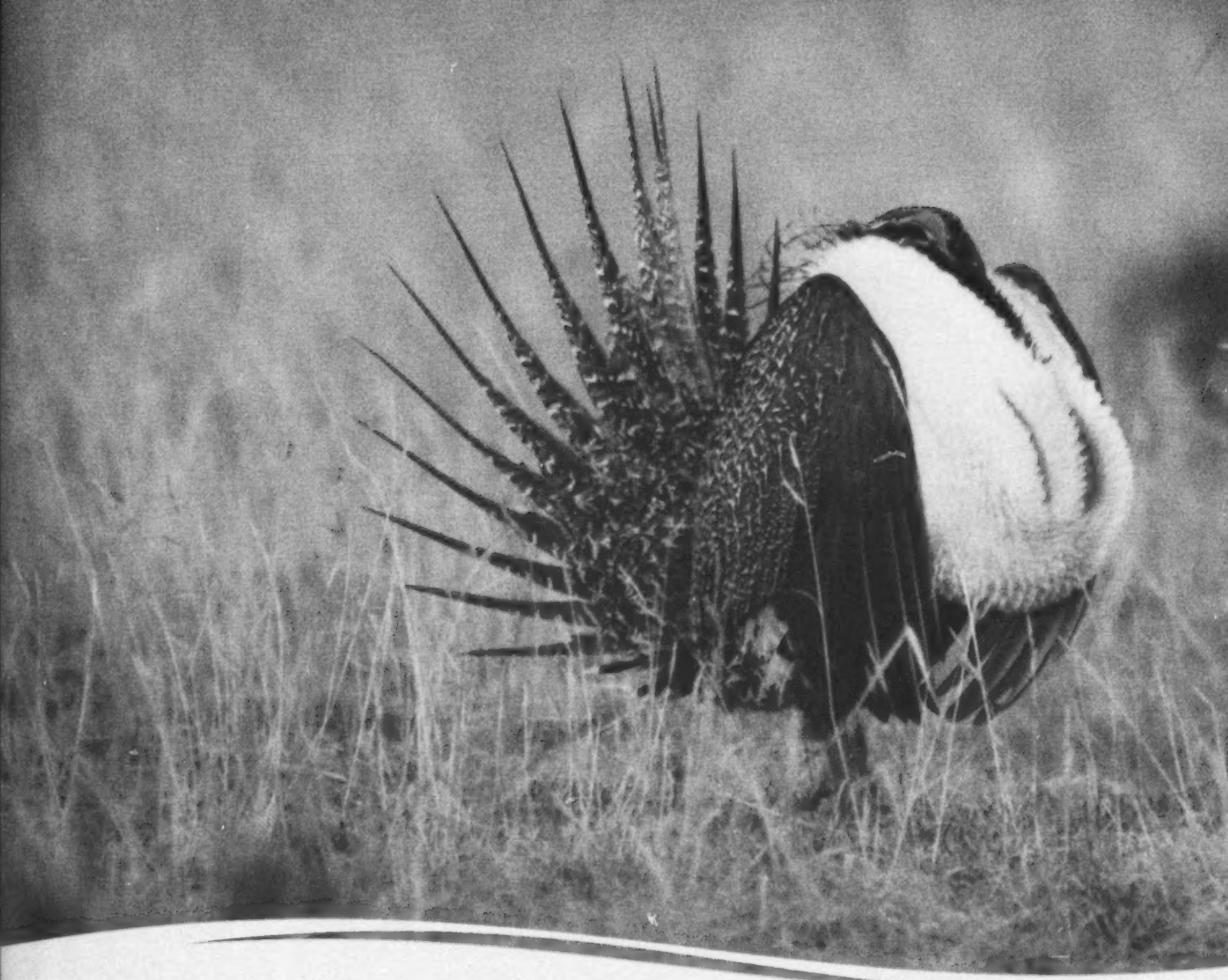

Annual Report 2010/11

Alberta Conservation Association

Conserving Alberta's Wild Side

Alberta Conservation Association

Conserving Alberta's Wild Side

Annual Report 2010/11

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Cover Photo: Mike Jokinen. Sage Grouse (*Centrocercus urophasianus urophasianus*)

Our Mission

ACA conserves, protects and enhances fish, wildlife and habitat for all Albertans to enjoy, value and use.

Our Vision

An Alberta with an abundance and diversity of fish, wildlife and their habitat; where future generations continue to use, enjoy and value our rich outdoor heritage.

Emily Turton, Junior Biologist, ACA.
Life History Strategies and Spawning Demographics of Bull Trout in the Upper Red Deer River Drainage

photo: Kevin Fitzsimmons

Alberta Conservation Association

Member Groups:

Alberta Fish & Game Association

Alberta Hunter Education Instructors' Association

Alberta Professional Outfitters Society

Alberta Trappers' Association

Nature Alberta

Pheasants Forever, Alberta Council

Treaty 8 First Nations of Alberta

Trout Unlimited Canada

Wild Sheep Foundation Alberta

2010/11 Board of Directors

Alberta Conservation Association Board of Directors meets quarterly and consists of nine member group representatives, one Provincial Government representative, four Public At Large representatives, one academic representative, one industry representative and the ACA/University of Alberta Chair in Fisheries and Wildlife.

Executive

Randy Collins, Chairman - Alberta Fish & Game Association

Patrick Long, Vice Chairman - Wild Sheep Foundation Alberta

Dr. Lee Foote, Treasurer - Public At Large, Academic Representative

Calvin Rakach, Secretary - Public At Large, Eastern Region

Brian Bildson, Past Chair - Alberta Trappers' Association

Directors

Tom Bateman - Southern Alberta Board Liaison, Alberta Hunter Education Instructors' Association

Dr. Mark Boyce - ACA University of Alberta Chair in Fisheries and Wildlife

Bob Byers - Alberta Professional Outfitters Society

Deryl Empson - Minister's Representative, Alberta Sustainable Resource Development

Sandra Foss - Nature Alberta

Colin Gosselin - Public At Large, Northeast Region

Bob Haysom - Pheasants Forever, Alberta Council

Adam Norris - Public At Large, Northwest Region

Don Pike - Trout Unlimited Canada

Jeff Smith - Public At Large, Southern Region

Vacant - Treaty 8 First Nations of Alberta

About Us

Since our inception as a non-profit in 1997, ACA has directed hundreds of millions of dollars towards thousands of conservation efforts across Alberta, from biological studies on the largest species to the securement of vast tracts of precious habitat. Every dollar from fishing and hunting license sales and every partnership contributes to the conservation of Alberta's natural heritage. Together we are securing the future of countless species of fish and wildlife and the habitat they call home while providing Albertans with access to a myriad of sustainable outdoor recreation activities.

We love the work we do. From the day-to-day reward of calling the beauty of Alberta's big backyard our 'office' to the privilege of working on behalf of Alberta's hunters, anglers and other outdoor recreationists, we consider ourselves lucky to live and work in such a precious place. We encourage you to find out more about our work and the partnerships that make it possible here in this report, on our website, or better still, go see for yourself at any of the 700+ Conservation Sites out there for you to explore. Bring the family and spend an afternoon in the peace and wonder of Alberta's wild side. We're confident you'll think it's worth every penny.

Delegated Roles and Responsibilities

Alberta Conservation Association holds special status as a delegated administrative organization (DAO), which means that we deliver responsibilities as outlined in the *Wildlife Act* and defined in a Memorandum of Understanding (MOU) with the Ministry of Alberta Sustainable Resource Development (ASRD).

In our role as a DAO, results from our population studies, surveys and assessments feed directly into ASRD management plans and form the basis for fishing and hunting regulation changes and evaluations of new management strategies, such as the special walleye fishing license.

Northern Sage-Steppe Habitat
– sage grouse recovery and MULTISAR

Partnerships
Alberta Summer Temporary Employment Program
Alberta Sustainable Resource Development
AltaLink
Canadian Natural Resources Limited
Government of Canada Habitat Stewardship Program for Species at Risk
Landowners
Prairie Conservation Forum

photo: Paul Jones

North Raven River Conservation Site

Map Grid **E3** 56

Partnerships
Alberta Conservation Association
Alberta Fish & Game Association
Alberta Sustainable Resource Development
Trout Unlimited Canada

photo: Darren Dorge

From the Chairman

I've always been a stickler when it comes to communication. I think it's an integral part of what we do. We may have been called the old boys club, dinosaurs, and unwilling to change with the times, but this is not the case anymore.

With our *Conservation Magazine* chock full of interesting articles on Alberta habitat, to the *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*, available in both print and online versions, these two great reads are a must for the Alberta resident who wants to hunt, fish, or just take a walk and enjoy any of our 250,000 acres' worth of vast and beautiful outdoor spaces.

ACA's latest innovation puts us and our conservation partners ahead of the mainstream with an App version of the popular *Guide*! The Alberta Outdoor Adventure Guide App, which took months in the making in order to launch in the new fiscal (May 2011), was featured on the App Store in the #1 spot for Apps for the Great Outdoors. Apps such as these are the future of travel and tourism, providing users with instant on-the-go access to maps, site updates and other relevant information. Check out our website to find out more!

This past year, I also attended the biodiversity granting session at the University of Alberta in Edmonton. One of the concerns expressed by the outdoors community has been that license money was being directed to universities and academics to support programs or studies that might not be in the best interests of Alberta's outdoor recreationists. That simply is not the case.

Since ACA's inception, I have always believed that some of the funds generated by our license sales ought to go back to science and research. With the thorough peer review and adjudication processes in place our dollars are being spent wisely, ensuring a viable and healthy future for our diverse wildlife habitat and providing excellent information to us, the hunters and anglers of the province who need these invaluable resources.

From magazines to new innovative web resources, and all the great information that these products feature, your ACA is not just listening to our conservation partners, but leading the way in informing all Albertans on the latest and greatest ways to access and enjoy our Alberta outdoors.

Randy Collins

Chairman, ACA Board of Directors
Alberta Fish & Game Association Representative

Crowsnest Drainage Sport Fish
Population Assessment – Phase 2

Partnerships
Alberta Sustainable Resource Development
Devon Canada Corporation

photo: Jason Blackburn

President and CEO's Message

We celebrate another great year in 2010/11 for ACA and our conservation partners.

Our conservation partnerships continued to grow as we moved into the second year of our hunter, angler and trapper retention, recruitment and education pilot programs. Leading the way once again with these were member groups such as Alberta Hunter Education Instructors' Association, Alberta Fish & Game Association (AFGA), Alberta Trappers' Association, Nature Alberta and Pheasants Forever (PF).

Todd and daughter Amanda Zimmerling

We thank our partners for their continued support of our conservation efforts, providing ACA with $4.8 million in non-levy revenue for a range of projects throughout the province. Their financial assistance allowed us to secure some 4,300 acres (1,740 ha) of habitat as new Conservation Sites, creating more opportunities through which Albertans can connect to and enjoy the outdoors. As in previous years AFGA, PF, Nature Conservancy of Canada (NCC), and Ducks Unlimited Canada (DUC) were instrumental in the securement of these sites.

ACA's Wildlife, Fisheries and Land programs also benefitted from the significant contributions made by our partner groups. AFGA, ASRD, Delta Waterfowl, DUC, Edmonton and Area Land Trust, NCC, Pheasants Forever, Trout Unlimited Canada and various watershed groups all contributed to the success of ACA projects. Our collaborative work is contributing to more efficient and effective use of hunter and angler dollars in Alberta and ensuring the best overall benefit for fish, wildlife, and habitat.

And the impressive list of statistics and achievements grows: we published the third edition of our *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide* with a total circulation of 100,000 copies. Visits to our website increased to an average of more than 4,000 per month.

We launched an App version of the popular *Guide*, which received more than 10,000 downloads within two months of its release last May. We stocked over 130,000 rainbow trout in 60 water bodies across Alberta, aerated 18 lakes, participated in 28 aerial ungulate surveys, interviewed 3,335 anglers during creel surveys, protected 10 kilometres of stream and 106 hectares of riparian habitat, walked 556 kilometres of transects in search of sharp-tailed grouse leks, surveyed 26 lakes for piping plovers and protected 117 nests, counted more than 34,000 ducks in northwest Alberta, surveyed 4,696 acres of ranchland for wildlife diversity and habitat condition, planted 6.5 kilometres of shelter belt for pheasant habitat, protected 1,486 acres of habitat with landowner habitat retention agreements, and secured 12 new Conservation Sites.

All this from a non-profit organization of just over 80 permanent staff.

Perhaps one of the most moving events for me this past year was the W.I.S.E Industry Conservation Award presented to me in February. Although the award had my name on it, I considered it to be recognition of the good work done by the staff at ACA. I may be the head of this organization but with most of my time spent in the office instead of the field, the truth is I do very little of the day-to-day conservation work. I hope that as you read through this annual report you will recognize that ACA is full of hard-working, dedicated staff who have made conservation their lives – they deserve the credit here.

Todd Zimmerling

President and CEO
Alberta Conservation Association

Doug Manzer, ACA Wildlife Program Manager and Layne Seward, AGFD Intermediate Biologist, monitoring bighorn sheep

photo: Mike Jokinen

Our People Our Culture

Health and Safety Program

ACA has implemented a comprehensive Health and Safety Program specifically designed to meet our employees' unique and diverse needs from traditional office settings to those out in the field. Everyone who works with or for ACA in any capacity (be it employees, contractors, volunteers, visitors, etc.) is obligated to comply with ACA's Health and Safety related policies and procedures for the protection of themselves and others.

ACA's Health and Safety program is comprised of the following key elements:

- Processes for handling and identifying well-known existing hazards as well as new hazards to prevent serious injury
- Requirements for Personal Protection Equipment (PPE) on ACA work sites, including both general PPE and specialized PPE geared toward specific tasks and hazards
- Mandatory safety training sessions and meetings to keep up-to-date on safety skills and ensure best practices are adhered to
- Regular inspections and maintenance on all ACA vehicles and equipment to ensure they are kept in safe operating condition
- Safety communications encompassing communication devices, plans and procedures that minimize potential hazards and prepare staff for potential emergency situations and incidents
- Incident reporting and investigation for all instances that result in personal injury or property damage in order to proactively and positively respond, minimizing or preventing reoccurrence

2010/11 Overview

Over the past year, we focused heavily on safety communication, including ongoing reviews and continual adjustments to improve planning and delivery across the wide array of ACA work sites. Notably, new communication devices were tested which we anticipate will be put into limited service this field season and potentially expanded in next fiscal's field season. We also continued to monitor the third-party provider of our safety communications service, and made numerous improvements to our online process for creating and distributing Project Safety Plans.

The Health and Safety Manual underwent numerous minor updates and revisions, incorporating insight, comments and suggestions from ACA staff. This type of input is invaluable to ensure the document remains current, comprehensive and user-friendly as it is used on a day-to-day basis.

Compared to previous years, driving (including vehicle-related accidents and near misses) was no longer considered to be the most common type of workplace hazard at ACA. This reduction in driving-related incidents was attributed to increased awareness and preventative actions by ACA staff. Looking back on the year no specific type of hazard was identified; the only notable increases being Near Misses and First Aid Only incidents which were attributed to diligent reporting by ACA staff. All incidents at ACA are taken seriously and reviewed to understand their nature and make corrections to reduce or eliminate hazards.

Human Resources

Human Resources plays many roles: we must establish, develop, maintain, and communicate policies and represent, help, advise, and consult with employees, all while keeping the overall best interests of the organization in mind. ACA's 82 permanent staff and 24 temporary seasonal staff are a key component in the success of the organization. We hire skilled staff to ensure our programs are delivered safely, on budget, on time, with the highest regard to quality.

We would like to extend our gratitude and appreciation to all ACA staff for their hard work and dedication to conserving Alberta's wild side. The following individuals reached these significant milestones this year.

10 Years of Service

Kevin Fitzsimmons, Senior Biologist
Marco Fontana, Senior Biologist
John Hallett, Intermediate Biologist
Mike Rodtka, Senior Biologist
Roy Schmelzeisen, Intermediate Biologist

5 Years of Service

Mandy Couve De Murville, Administrative Assistant
Lisa Monsees, Communications Manager
Amanda Rezansoff, Junior Biologist
Robb Stavne, Senior Biologist
Jennifer Straub, Intermediate Biologist

2010/11 Overview

Employee Survey

Highlights from this year's edition of our annual employee survey indicate:

- 88% of employees agree that they are satisfied with ACA as a place to work. Two-thirds of employees strongly agree, setting a new record high
- Employee engagement is at a high of 89%
- Embracing ACA values and demonstrating them on a daily basis also reached a high of 93%.
- The majority of employees are in strong agreement of teamwork being important and beneficial

Employee Retention

- Turnover is down 0.3% from the previous year to 5.0%, reaching the target outlined in the Strategic Business Plan
- Developing employees to maximize their abilities, while improving their working environment, is key to job satisfaction and is something we will continue to provide

Information Technology Program

As ACA operations evolve, it is essential that our IT systems remain reliable and efficient, flexible and adaptable. IT played a key role in meeting the changing needs of specific programs, and projects, and the organization by identifying and implementing several new solutions.

IT provides daily technical support to ACA staff for any issues with software, hardware, networking and mobility systems

2010/11 Overview

- Migrated ACA email to Microsoft Exchange Online Services, allowing for larger email storage for staff while reducing in-house server requirements, thereby cutting costs by $6,000 per year
- Accepted into the ESRI Not-for-Profit Program supporting Conservation and Humanitarian causes, saving ACA more than $20,000 per year
- Migrated corporate cellular plans to a new provider, aligning new plans to meet CRA standards while saving $5,000 per year
- Implemented new computers with Windows 7 and migrated all computers to Office 2010. Utilizing other non-profit programs, we were able to save $7,800 in licensing fees. Participating in this program will provide ongoing cost savings when purchasing certain licenses
- In conjunction with Communications, we migrated the ACA website to a virtual server to meet future growth and also reduce costs by not having to purchase a new in-house server
- Provided assistance to Finance to migrate a member's group accounting to Microsoft Dynamics Navision
- Assisted Health and Safety in researching other forms of communications for workers going into remote areas, such as two-way satellite texting devices.

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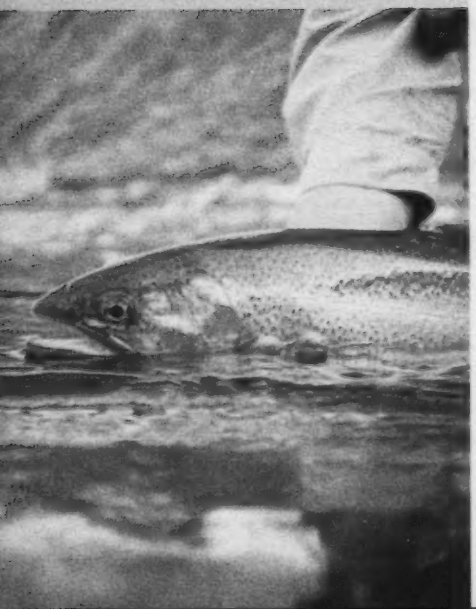
Conservation
Programs

Communications



2010/11 was a year of many new frontiers for Communications, as optimizing our digital media avenues and reach became a primary strategy. We made great strides with the launch of the App version of the ever-popular *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*. The App allows users to search the complete Conservation Site database either by site name or proximity to a specific location, get driving directions, current local weather conditions, view site details, receive important updates and news through in-App push notifications, and much more. Available free on iTunes, the App received more than 10,000 downloads in the two months following its release.

Our social media network nearly doubled over last year, thanks to WIN card holders, trade shows and the promotion of the App and peregrine web cameras. Located in Edmonton's Bell Tower and Weber centre, these 'cams' had followers of female peregrines E4 and MO7 hooked with real-time footage of their chicks. Work continued on the overhaul of project pages on our website (including MULTISAR, Aerial Ungulate Surveys, and the Nest Box Program) as well as a significantly enhanced Careers page to allow candidates to search jobs and submit resumes more easily.

For as much as our focus was on digital media, we also heard loud and clear that our print publications are as popular and appreciated as ever. We responded to the call from our Board of Directors to expand *Conservation Magazine* by four pages. Look for this additional content in the Spring/Summer 2012 edition. The *Guide* also went into its fourth printing, profiling some 703 Conservation Sites, our conservation partners as well as numerous additional editorial features.

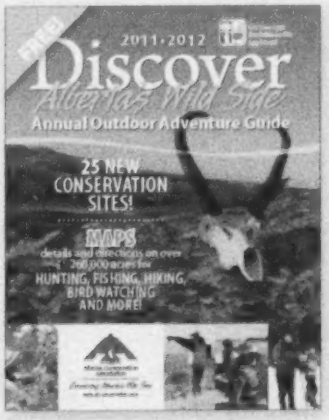
Internally, we completed posters, study and Conservation Site signage, promotional banners, brochures and other pieces to help our program areas achieve their communications goals. These included an Amphibian Stewardship brochure which will be used by several conservation agencies across North America, WIN Card benefits promotions, and updated branding and messaging for Report A Poacher, including a revamped logo.

We remain committed to maximizing manpower resources and budget, engaging our partners as much as possible through joint communications support and promotions. This year, we had the pleasure of working with Environment Canada's Habitat Stewardship Program on media relations surrounding the funding of species at risk projects in southern Alberta and also with the County of Strathcona on our Robert Bateman: Get to Know Conservation Site. We continued to explore cross-promotional opportunities surrounding the *Guide* with DUC and ASRD who have included over half of their sites.

Finally, we were honoured to have been selected by the Wildlife Society Publications Award for the *Guide*. Also, our Best Photograph submission to the Alberta Magazine Publishers Association Awards was nominated as a finalist. The photograph of the stunning rainbow trout appeared on the cover of the Spring/Summer 2010 edition of *Conservation Magazine*.

2010/11 Overview

- *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*
  - Fourth edition published
  - 100,000 copies printed and distributed primarily in Alberta
  - 703 Conservation Sites profiled totaling 250,000 acres of habitat conserved
- *Conservation Magazine*
  - Two issues published
  - 50,000 hard copies distributed
  - 24,000 online subscribers
- Annual Report produced
- Annual Operating Plan produced
- Television
  - 10 one-minute television vignettes produced in partnership with Let's Go Outdoors
  - 48 television occasions resulted (each vignette was aired over a two week period during the prime time supper news breaks)
  - 3 million viewers reached
  - 26 feature stories produced resulting in 10,816 occasions on the weekend show and 6,240 occasions for daily features
  - 3 stand-alone features produced on the WIN Card benefit program that ran on the weekend show resulting in 256 occasions
- Web
  - 63,603 unique visitors to www.ab-conservation.com, up 60.39% over last year
- Radio
  - 8,320 total occasions on radio produced in partnership with Let's Go Outdoors, combined between radio feature stories and the one-minute commercials
  - 1,600 additional occasions recorded with opening and closing billboards on the weekend radio show
  - 4,992 occasions of one-minute daily radio columns, each of these aired at a minimum of three times per day, seven days a week
- 1,892 respondents to our "Grizzly Truth" online survey
- Number of e-newsletter subscribers (Wild Mail) increased from 16,645 to 26,003



Business Development

Since ACA's inception, Alberta companies have sponsored and supported various projects that aligned with their corporate philosophy and goals or met the needs of the communities in which they operate. In response to growing corporate interest, the Business Development program was established in 2007 to support existing partnerships as well as explore new partnership and sponsorship opportunities.

ACA's Corporate Partners in Conservation (CPIC) Program provides several opportunities for businesses to play a vital role in conserving Alberta's natural heritage by participating in the Habitat Securement Enhancement and Management Fund, the Special Project Support Fund or the WIN Card Benefits Program.

In recognition of this commitment, CPIC participants are provided with a seal that identifies them as a leader in Alberta conservation as well as to advertise their involvement in the program. In turn, ACA assists with the promotion of these partnerships through existing communications initiatives.

Business Development is also responsible for generating revenue through advertising sales to offset costs associated with Communications activities on television, radio and our in-house publications, *Conservation Magazine* and the *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*.

2010/11 Overview

Six companies signed on as Corporate Partners in Conservation:

- Battery Medic
- Bell
- Canadian Western Bank
- La Terra Ventures
- Sign-A-Rama
- Total E&P Canada Ltd.

Business Development also secured over $40,000 in advertising sales in the two 2010 issues of *Conservation Magazine* and the 2010-2011 *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*.

Wildlife Program

Enhance the diversity and abundance of wildlife and their habitats

Home on the range

Part of our upland game bird program involves working with landowners to enhance their land for wildlife, while sustaining a profitable farming operation. Pheasant numbers decline in harsh winters, but with select habitat enhancements, survival can be vastly improved. Working with Pheasants Forever, we initiated major enhancement projects on five farms, which included planting more than 6.5 kilometres of shrub that will act as shelter for ground dwelling birds. We also initiated an Advisory Workshop series to provide farmers with information on how to implement habitat enhancements for upland birds.

Identifying vital habitat for grouse

Heavy snowfall in southeastern Alberta last April impeded our surveys for sharp-tailed grouse, cutting back on field time and reducing apparent dancing activity at sharp-tail leks. Yet we still walked more than 550 kilometres searching for leks, 78% of which were found located in areas that our mathematical models predicted to be of high value for sharp-tailed grouse. In northwestern Alberta we initiated a project to improve habitat conditions for ruffed grouse on public-access hunting sites. We improved 4.7 kilometres of trail at two sites to encourage traditional and family-friendly upland game bird hunting.

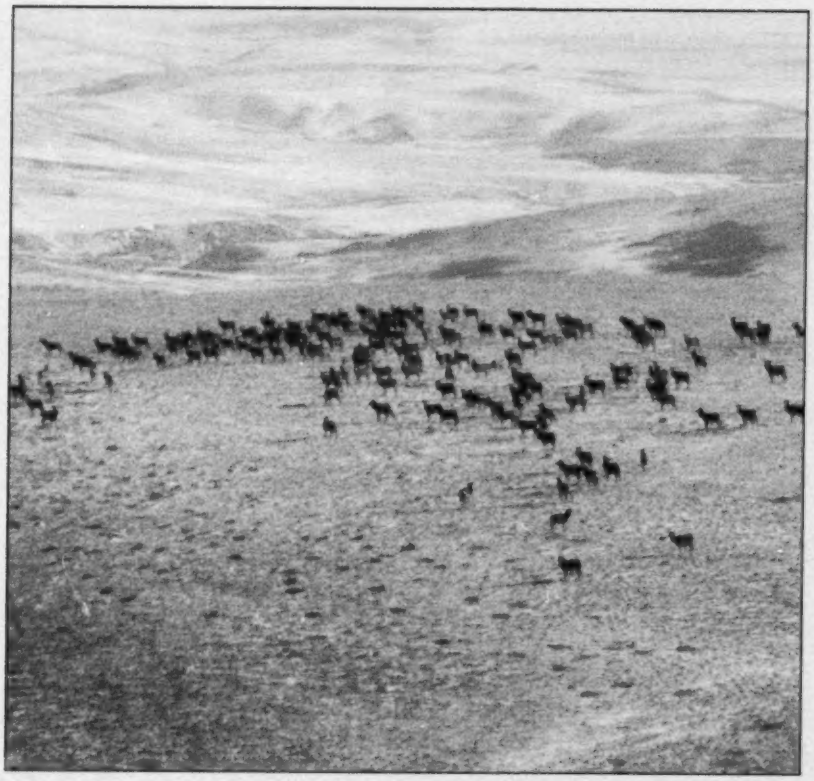
Safe passage for pronghorn

Pronghorn move vast distances in short periods of time following a snowfall, but obstacles such as fence lines, houses and large roads pose significant barriers to their progress. We mapped fence lines in 56 townships to identify pinch points where movement is at risk, and provided these ranked locations to Alberta Fish & Game Association (AFGA), our partner in this study. AFGA then worked with their network of volunteers to physically enhance fence lines. We also set up 34 trail cameras to evaluate pronghorn response to these fence modifications.

Aerial ungulate surveys

ACA and Alberta Sustainable Resource Development completed 28 aerial surveys providing 55 separate population estimates for deer, elk, bighorn sheep, bison, mountain goats, pronghorn antelope and moose. Collaborating with graduate student Wibke Peters, we have developed an alternative survey method to improve the efficiency of moose surveys. Wibke has completed this work and will seek to have it published in the scientific literature. We have also deployed a new two-pronged approach to pronghorn surveying to achieve more precise counts, both collecting data in the traditional way as well as using a distance sampling technique. This combined technique is working very well, with the distance sampling information providing a more robust estimate of the population number as well as a measure of the confidence in that number.

Ryan Hermanutz, Junior Biologist, ACA.
Upper North Saskactchewan Prescribed Burn



Fragile future

At least 989 chicks have been fledged as a direct result of our piping plover recovery efforts over the last 10 years. The population of adult plover pairs has also improved markedly over this timeframe. We have worked with dozens of landowners to improve the shoreline habitat that is vital to the plover's breeding success. Our intensive efforts placing predator exclosures around nests has always been intended as an adaptive approach to improve nest survival until population numbers improve; as such, we will stop the placement of exclosures after 2010 to assess if population numbers will remain stable. In other species-at-risk work, we translocated 15 northern leopard frog egg masts at 10 sites as a re-introduction method. We saw definite signs of success in 2010 with adult frog sightings at four re-introduction sites from previous years, one of which had the first egg mast of its own. We also published three status reports in 2010 on grizzly bear, Great Plains toad and woodland caribou.

No fowl play

We provided more than 100 landowners with scare cannons to frighten waterfowl feeding on their crops. We also encourage landowners to allow hunting on their property, and manage a page on our website to facilitate the connection between hunters looking for a place to hunt and landowners with problem waterfowl.

Overall, the success of our Wildlife program activities in 2010/11 involved the support of 50 partnerships, including government staff, industry, NGOs, counties/municipalities, universities, leaseholders and private landowners, and many other interested groups.

2010/11 Overview

- *6.5 kilometres of shelter belts planted to enhance winter survival and escape cover for pheasants*
- *556 kilometres searched for sharp-tailed grouse leks in southeast Alberta*
- *4.7 kilometres of trail enhanced to increase ruffed grouse use and encourage traditional, family-friendly upland game bird hunting at two sites north of Peace River, Alberta*
- *90 acres reseeded back to native grassland*
- *11 kilometres of wildlife-friendly fence installed on two properties ensuring a minimal bottom wire height of 18". Those close to a sage grouse lek were fit with reflectors to avoid flight collisions*
- *4,696 acres of ranchland surveyed for wildlife diversity and habitat condition*
- *103 range health assessments completed*
- *2,300 wildlife sightings recorded, of which 76 were species at risk*
- *28 aerial surveys conducted, providing 55 separate population estimates for deer, elk, bighorn sheep, bison, mountain goats, pronghorn antelope and moose*
- *5,646 kilometres of fence line mapped over 57 townships from satellite imagery to identify barriers for pronghorn migration*
- *34 trail cameras evaluated pronghorn response to fence modifications*
- *233 piping plovers found, while surveying 26 lakes*
- *117 of 121 piping plover nests fitted with exclosures in 2010*
- *80.3% of the plover nests with exclosures were successful, roughly 1.7 times greater than non-exclosed nests*
- *15 egg masts translocated to re-introduce northern leopard frogs at 10 sites, frogs sighted at four re-introduction sites*

Aerial Ungulate Surveys

Aerial ungulate surveys (AUS) provide information on population size and trends, population demographics and reproductive output for numerous ungulate species including deer, elk, bighorn sheep, bison, mountain goats, pronghorn antelope and moose. Alberta Sustainable Resource Development (ASRD) relies on survey information to set hunting quotas and assist with land use planning efforts. ACA works in partnership with ASRD to conduct these surveys across the province. During 2010/11, we conducted surveys for all harvested ungulate species in Alberta, providing 53 population estimates. Additionally, our staff assisted with three ASRD-funded surveys. We also conducted continual improvement survey trials with ASRD for pronghorn antelope using distance sampling. We entered all data into the Fisheries and Wildlife Management Information System (FWMIS) and summary information will be available for public viewing once final reports are completed in early summer 2011.

Partnerships

Alberta Sustainable Resource Development

Alberta Northern Leopard Frog Recovery Program

The northern leopard frog (NLF) (*Lithobates pipiens*) has suffered dramatic population declines in many parts of its range in Alberta that do not appear to be part of a natural cycle. Reduced area of occupancy and fragmented populations led to its listing as *Threatened* under Alberta's *Wildlife Act* in 1996. Population and habitat monitoring, reintroductions, habitat protection and stewardship initiatives are actions being implemented to recover populations in Alberta.

In 2010, we continued with our partnership with the Town of Taber that involved habitat assessments for NLF and stewardship advice. We also co-ordinated the translocation of egg masts for reintroduction at 10 sites split between Waterton Lakes National Park and Beauvais Lake Provincial Park. We surveyed 14 sites that included monitoring known sites, assessing re-introduction and stewardship sites, and searching for new NLF populations. We observed introduced frogs at four re-introduction sites, including an egg mast at the Wyndham-Carseland Provincial Park re-introduction site.

Partnerships

Alberta Sustainable Resource Development, Calgary Zoo, Government of Canada Habitat Stewardship Program for Species at Risk, Parks Canada, TD Friends of the Environment Foundation, Town of Taber

Alberta Wildlife Status Reports

The Alberta Wildlife Status Report Series provides comprehensive summaries of the status of selected wildlife species in Alberta. High priority species are those considered *At Risk* or *May Be At Risk* in *The General Status of Alberta Wild Species 2005*, or considered to be at risk at a national level by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Each spring, ACA and staff from Alberta Sustainable Resource Development prioritize the species that are most in need of a detailed status assessment. Status reports contain information on species distribution, habitat, population, limiting factors and management in Alberta, and provide a basis for the Scientific Subcommittee (of Alberta's Endangered Species Conservation Committee; ESCC) to complete a formal status assessment of that species. The Subcommittee provides the ESCC with the formal status evaluation, and the stakeholder-based ESCC concurs or withholds concurrence of the recommended status, which is then provided to the Minister of Alberta Sustainable Resource Development to determine the legal designation. ACA oversees the entire publication process for status reports, including the contracting of experts to write the report, editing drafts, supervising the external review process, completing the final formatting, and distributing printed reports. In 2010/11, we published three updated status reports (grizzly bear, Great Plains toad, woodland caribou).

Partnerships

Alberta Sustainable Resource Development

Habitat Legacy Partnership

Upland game birds are highly valued for their showy colours, breeding displays and long history in the hunting tradition of Alberta. Ring-necked pheasants require a variety of habitats that provide suitable cover for nesting, brood rearing and travel. In 2010/11, we continued to work in partnership with Pheasants Forever Calgary, private landowners, counties, and on ACA-managed sites to support enhancement activities for upland habitat. Through presentations at landowner habitat workshops, using information booklets and performing site visits, we provided information about pheasant habitat needs and the benefits of habitat diversity to hunters, conservation groups, members of the agricultural community and private landowners. In the coming year, we will continue to develop relationships with key members of the agricultural community, work with private landowners on property habitat plans, run pilot activities to assess wildlife monitoring protocols, and actively work with multiple partners to support enhancement projects in southern Alberta.

Partnerships

Landowners, Pheasants Forever – Chinook Chapter and Calgary Chapter

Hay-Zama Wetland Monitoring

The Hay-Zama Wetland Monitoring program was developed in response to concerns about the potential impact of oil and gas activities within the wetland complex on waterfowl. As a condition of operation within the Hay-Zama complex, the Energy Resources Conservation Board requires oil and gas companies to monitor staging waterfowl and suspend production of a well if waterfowl numbers exceed the level of 600 individuals within 30 metres of a well site. To monitor waterfowl numbers, we flew weekly aerial surveys during spring and fall migration periods over all producing oil and gas wells within the complex. Our weekly surveys also included an established route over the entire complex to estimate the aggregate number of staging waterfowl observed for each survey, which we used to assess when the bulk of migration had occurred. We observed peak numbers during the first survey week in spring (April 28) and the fourth survey week in fall (September 23). Waterfowl concentrations did not exceed threshold levels at any well site during the 2010 migration periods. We also flew a single aerial survey for bald eagle nests within the complex on June 9, 2010 and observed eight active nests.

Partnerships

Hay-Zama Committee, NuVista Energy Ltd., Pengrowth Corporation

MULTISAR

MULTISAR is a multi-species stewardship program for species at risk focusing on the Milk River and associated watersheds. The program is a collaborative effort among landowners, ACA, Alberta Sustainable Resource Development and the Prairie Conservation Forum. In 2010, we completed detailed wildlife and range surveys on 4,696 acres of land and completed five habitat plans (Habitat Conservation Strategies). Endangered ferruginous hawk and greater short-horned lizards, as well as threatened loggerhead shrike, swift fox, trumpeter swan and Sprague's pipit are a few of the species we identified on these lands. Enhancements were implemented on five properties including the reseeding of 90 acres back to native grass, safeguarding one tree that can be used by ferruginous hawks for nesting, planting 548 native shrubs (silver sagebrush, thorny buffaloberry and chokecherry shrubs), installing four bat boxes in areas without natural cavities, and installing 11 kilometres of wildlife-friendly fence. Monitoring of previously completed enhancements resulted in the discovery of Sprague's pipit and chestnut-collared longspurs using native grassland that had been seeded only three years prior. Through open communication, we will continue to build long-term relationships and increase awareness of species at risk with the landowners that care for our wildlife. These relationships will help us implement habitat conservation strategies that benefit wildlife and complement the business strategy of individual landowners.

Partnerships

Alberta Summer Temporary Employment Program, Alberta Sustainable Resource Development, AltaLink, Canadian Natural Resources Limited, Government of Canada Habitat Stewardship Program for Species at Risk, landowners, Prairie Conservation Forum

Dan Bloggess, Intermediate Biologist, ACA, at Piping Plover Recovery Program electric fence installation

Piping Plover Recovery Program

The piping plover is a small, black and white, stubby-billed shorebird listed as *Endangered* under Alberta's *Wildlife Act*. They rely heavily on gravel-strewn beaches for nesting and rearing broods. Nest predation and habitat degradation have been identified as limiting factors for this species. Consequently, we applied predator exclosures to enhance their reproductive success and completed habitat enhancement activities to mitigate threats to breeding habitat. We also conducted annual surveys on core breeding lakes to monitor population numbers and movement, and to complement the international census conducted every five years across North America. Our work is done with the support of the Alberta Piping Plover Recovery Team, funding partners and the many landowners throughout east-central and southern Alberta.

In 2010/11, we carried out population inventories on 26 waterbodies for piping plovers and recorded 233 adults on 21 of these lakes. We located 121 nests and applied predator exclosures around 117 of these to enhance nest success. Overall, Mayfield nest success was 80.3% with an estimated 1.34 chicks per nest fledged. This year, we banded four young plovers, recorded 23 previously banded birds, and determined banding year and lake of origin for 11 of these individuals. We completed fencing projects on four lakes to protect breeding habitat from livestock and predators. Two of these followed wildlife-friendly guidelines and two were temporary fences, bringing total shoreline protected since 2002 to over 48 kilometres. We also conducted habitat assessments at 11 sites on four lakes that we have previously protected in order to monitor changes in habitat features over time.

Partnerships

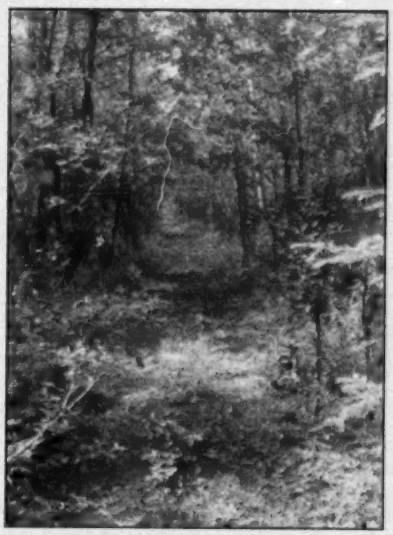
Alberta Summer Temporary Employment Program, Alberta Sustainable Resource Development, Alberta Tourism, Parks and Recreation, Canadian Wildlife Service, landowners, Department of National Defence, Ducks Unlimited Canada, Government of Canada Habitat Stewardship Program for Species at Risk, TD Friends of the Environment Foundation

Ruffed Grouse Recreational Access

We enhanced 4.7 kilometres of trail near Peace River to create conditions that encourage traditional and family-friendly hunting opportunities for ruffed grouse. We initiated improvement of trails within two ACA Conservation Sites to encourage hunter access and improve foraging opportunities for ruffed grouse. In mid-June 2010, we removed large deadfall, seeded alsike clover, and spread grit to attract ruffed grouse. Three months later we observed strong annual growth of the clover, and compared the count of grouse observed near enhanced and non-enhanced trails. While not statistically rigorous, we found more grouse near enhanced trails compared to a similar length of non-enhanced trail at each of the two sites. These preliminary results suggest that modest treatments within decadent stands of aspen parkland may enhance within-year forage and perhaps attract grouse near these trails. We anticipate expanding this work in future years to create clusters of enhanced sites that can be accessed by hunters wishing to walk rather than drive while pursuing ruffed grouse.

Partnerships

None

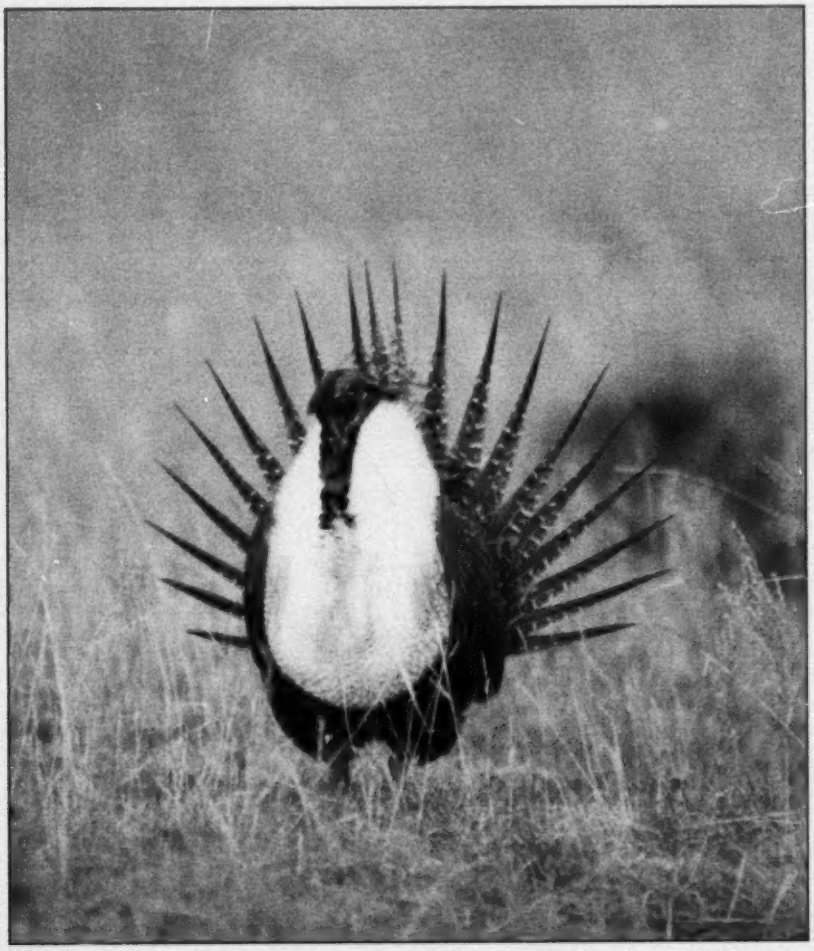


Sage Grouse Recovery

Sage grouse is arguably the most critically imperiled species in Alberta and the current population may not be viable unless augmented with birds from Montana. One limiting factor for sage grouse is mortalities associated with grouse striking barbed wire fences. We completed a review of the literature pertaining to collisions by grouse with fences and related mortalities. We determined that there is an average of 0.0009 kilometres of fence line per kilometre^2 within the current range of sage grouse in Alberta. The average distance to an active and inactive sage grouse lek from a fence line is 601.12 ± 98.9 metres and 438.6 ± 60.1 metres, respectively. We marked fences using markers cut from vinyl undersill along a newly-constructed fence line (4.8 kilometres) near an active lek and along the west and south boundary fence of the Silver Sage Conservation Site (2.4 kilometres). The marked fence lines on the Conservation Site will be used for demonstration purposes with information incorporated into a proposed sign for the property.

Partnerships

None



Sharp-tailed Grouse Habitat Inventory

Improvements continue to be made in the development of less labour-intensive models to estimate lek density across broad spatial areas. In the spring of 2010, we developed a resource selection function (RSF) model to identify areas of probable sharp-tailed grouse lek sites in two wildlife management units (WMUs 102 and 118) in southeastern Alberta. We predicted that the best model would be associated with habitat features important for nesting, brood-rearing and winter cover. Although snow and other inclement weather impeded surveys, we completed 83 transects and discovered 14 leks. Of these new leks, 78% were located in habitat predicted to have a higher likelihood of occurrence. This result indicates that using the average RSF score around each transect is a useful way to stratify survey efforts. Validation of the model suggested a reasonable fit, although the model would be improved with additional lek locations.

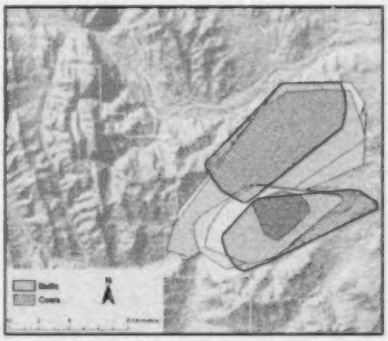
To address concerns of reduced habitat quality in northern Alberta, we also initiated a habitat inventory using aerial photos to map nesting and brood-rearing cover at the High Prairie Grazing Reserve. We developed best management practices that recommended enhancing nesting and brood-rearing cover in pastures containing lek sites through deferred and moderate grazing practices and retention of shrubs.

Partnerships

Alberta Sustainable Resource Development, High Prairie Grazing Reserve, Special Areas Management Board, Wanham Grazing Reserve

Sightability Correction for Elk Aerial Surveys in Southwest Alberta – A Component of the Southwest Alberta Montane Elk Study

In Alberta, elk are highly valued as an important component of large mammal predator-prey systems, as a recreational resource, and as an indicator species for assessing the impacts of industrial activity on habitat utilization. In some areas, elk are a major source of conflict with landowners as they compete with domestic stock for forage. Because of the diversity of perspectives surrounding elk, accurate population estimates are important for informing management decisions that attempt to balance conflicting issues. Elk aerial surveys in southwestern Alberta are currently conducted as total trend counts during winter when elk are congregated and when snow cover provides good sightability. While these surveys provide a useful measure of relative abundance through time, they are a minimum count and do not allow estimates of the proportion of the population that is missed. Mature bull elk (three point+) typically travel in smaller groups and may exhibit different habitat use from cow groups. It is likely that estimates of bull numbers from trend surveys are biased low due to differential sightability between the two sexes. Elk survey data could be improved with the development of a method that corrects winter range counts for sightability or identifies new survey areas that would improve the accuracy of observed bull:cow ratios. Using GPS collar elk data from the Southwest Alberta Montane Elk Study, it may be possible to identify winter ranges used by mature bull elk that are not currently surveyed, and if necessary, develop a site-specific model to predict the proportions of both bull and cow elk that are not observed. We used GPS collar location data from both mature bull and cow elk to examine patterns of spatial overlap between the two sexes during the period when aerial surveys would be conducted (January to March). During 2008, mature bull and cow elk showed different patterns of space use throughout the winter, suggesting that current surveys may underestimate bull:cow ratios if they are focused on large elk congregations. During 2009 and 2010, mature bull and cow elk did not show this difference in space use in the winter; however, sample sizes in these two years were very small, limiting our ability to draw firm conclusions.



Partnerships

The Southwest Montane Elk Steering Committee was formed in 2005 and consists of the following collaborative partners and funding sources: Alberta Conservation Association, Alberta Ingenuity Fund, Alberta Sport, Recreation, Parks and Wildlife Foundation, Alberta Sustainable Resource Development, Boone and Crockett Club, Canadian Wildlife Federation, Devon Energy Corporation, Natural Sciences and Engineering Research Council of Canada, Oregon State University, Parks Canada, Safari Club International, Shell Canada Energy, Southwest Alberta Sustainable Community Initiative, Spray Lakes Sawmills, University of Alberta, University of Calgary, World Wildlife Fund

Suncor Sustainable Grasslands Program

Grassland conservation, and sustaining the species, ecosystems, cultures and economies that depend on them, is of common interest to wildlife and land management organizations. Petro-Canada sponsored a three-year program (2007 to 2010) called the Petro-Canada Sustainable Grasslands Program that addresses issues of grassland and associated species conservation in the foothills fescue and mixedgrass subregions of Alberta. Four projects were undertaken as a part of this program. ACA delivered a project looking at tree and shrub encroachment in the foothills fescue natural subregion. Three projects were delivered in the dry mixed grass natural subregion by graduate students at the University of Calgary: sage grouse conservation planning, silver sagebrush reclamation, and cumulative human impacts on pronghorn. Two reports, one thesis and five presentations were completed in the last year of the program.

Partnerships

Petro-Canada (a Suncor Energy Company), University of Calgary

Ungulate Winter Range Restoration

Although wildfire suppression was initiated with reasonable intentions by resource managers, conservationists and landowners of the past, our understanding of forest ecology today indicates that wildfire plays an important role in the sustainability of natural forests. Prescribed burning and mechanical clearing provide methods for restoring ecosystem condition in areas affected by wildfire suppression. These methods are considered to be particularly valuable for restoring habitat value for ungulates in Alberta. We work with Alberta Sustainable Resource Development and other conservation groups to carry out such treatments as part of our Ungulate Winter Range Restoration (UWRR) project.

In 2010/11, we participated in several activities as part of our UWRR project. In spring 2010, we provided logistical support to Alberta Sustainable Resource Development during the implementation of two prescribed meadow burns, totaling approximately 69 hectares in the Upper Foothills of the Clearwater River subbasin. The 2010 burns increased the total meadow habitat area burned to approximately 134 hectares over three years. This total burned area achieves 33% of ACA's 10-year target for disturbance rate in these habitats. In support of ecological objectives established in the Cline River and Peace River subbasins, and as part of an adaptive management monitoring program for evaluating UWRR project objectives, we completed the collection of post-burn year one monitoring data within the Upper North Saskatchewan and Hutton Creek 2 prescribed burns. In support of the Petro-Canada Sustainable Grasslands Program (Suncor), we evaluated 50 remotely-classified land cover type polygons in the southern Porcupine Hills study area. Accuracy of the land cover type classification was determined to be 83%. The validation of an acceptable level of accuracy in the land cover classification provides a basis for undertaking future work to identify habitat values and habitat restoration opportunities. As part of an initiative to leverage expertise between ACA program areas, we completed a scoping exercise and developed a draft inventory protocol for evaluating habitat enhancement opportunities on ACA-titled and managed lands. Although restoration objectives have not yet been met in our priority landscape units, efforts undertaken in 2010/11 as part of the UWRR project contributed to restoring the ecological role of fire in important ungulate habitats.

Partnerships

Alberta Sustainable Resource Development, Tay River Environmental Enhancement Fund (Shell Canada Energy)

Upper North Saskatchewan (Landslide Lake) Fire and Wildlife Interpretive Trail

Prescribed burns in the east slopes of Alberta have presented an excellent opportunity to engage the public about the important role that fires play in maintaining and enhancing the forested ecosystem. Program goals were to develop an interpretive trail in a recent prescribed burn that would give visitors an up-close glimpse of the forest after fire and improve people's understanding about natural disturbance in creating and maintaining wildlife habitat. This being the third year of the project, work focused on completing development of the interpretive trail, opening the trail for public use, promoting trail use, and continuing to educate visitors of the value of wildlife and fire ecology. Throughout the year we successfully developed both short (400 metres) and long loop (two kilometres) interpretive trails, installed interpretive signage, printed and distributed promotional fire brochures and factsheets, and promoted the project through several media avenues and special events, including a Grand Opening event that officially opened the trail for public use. Early response by public users suggests the project has been successful in engaging and educating visitors about the important role that fires play in maintaining and enhancing the forested ecosystem.

Partnerships

Alberta Sport, Recreation, Parks and Wildlife Foundation, Alberta Sustainable Resource Development, Mountain Equipment Co-op, TD Friends of the Environment Foundation

Casey Rasmussen, Intermediate Biologist; Shevchell Webb, Intermediate Biologist; ACA. Landslide Lake Fire and Wildlife Interpretive Trail.

Waterfowl Crop Damage Prevention Program

The Waterfowl Crop Damage Prevention Program assists agricultural producers in reducing damage to crops caused by waterfowl during fall migration and is delivered by ACA in collaboration with Alberta Sustainable Resource Development and Environment Canada. ACA and Environment Canada have traditionally shared costs associated with the program. In 2010/11, Environment Canada was unable to commit to cost-sharing the program by the time delivery was initiated, therefore we were not able to operate waterfowl feeding stations. We provided waterfowl scaring equipment and advice free-of-charge to producers. We also maintain a web page that provided scaring advice and displayed areas of potential waterfowl concentrations that hunters were able to use to plan their activities.

We provided 126 landowners with 275 scare cannons. Of these landowners, 34% allowed their contact information to be provided to waterfowl hunters. We updated our website weekly with areas of scare cannon use through the fall. We received requests from nine waterfowl hunters looking for concentrations of waterfowl as a result of the website.

Partnerships

Alberta Sustainable Resource Development, Environment Canada

Waterfowl Nesting Habitat Enhancement

We strive to provide nesting habitat in areas where ground cover or mature aspen nesting sites limit potential nesting sites for mallards, bufflehead and goldeneye. Approximately 1,300 nest boxes and 245 nest tunnels have been installed across Alberta in partnership with Ducks Unlimited Canada and Delta Waterfowl. Annual monitoring and maintenance of nest structures is carried out by ACA staff and many volunteers.

In 2010, we provided 70 nest tunnels and 48 nest boxes to volunteers to install. We monitored 52 out of 245 nest tunnels and found that approximately half were used in the 2010 breeding season, with an estimated nest success of 100%. We also maintained 16 nest boxes. Furthermore, we delivered three waterfowl habitat presentations that were attended by 18 adults and 37 youth.

Partnerships

Alberta Fish & Game Association, Delta Waterfowl, Ducks Unlimited Canada, Syncrude Canada, Wildlife Habitat Canada, Windsor Plywood

Where the Pronghorn Cross – Mapping and Evaluating Fences in Southern Alberta

The pronghorn is the most specialized endemic large mammal to the Grasslands Natural Region of Alberta. Having evolved on the prairies, pronghorn have not honed an ability to jump vertically to facilitate movement through obstructions or escape predators. With human settlement across the west, fencing soon loomed over the prairies and created a barrier to pronghorn movement. Pronghorn have difficulty crossing a fence and commonly stoop under the bottom wire. This behaviour can cause significant hair loss and scarring from the barbs, and occasionally entangles individuals which may become trapped. In order to be able to assess how fence lines affect movement by pronghorn and to prioritize areas for Alberta Fish & Game Association to make fences more pronghorn-friendly, we mapped the location of fence lines in 57 townships in southeastern Alberta using satellite imagery. In total, we mapped 5,646 kilometres of fence line. Alternative fencing methods have been designed that allow easier passage by pronghorn, but few have been tested. We set up 34 camera traps to monitor non-modified fence lines with a bottom wire 35 centimetres from the ground or lower. After a month, we randomly modified 17 fence lines to goat bars (a device which raises the bottom fence line wire by clipping it to the wire above it) to assess pronghorn reaction to the enhancement, anticipating that modified fence sections would be preferentially used by pronghorn. As results from the fence modification enhancement study become available, we will disseminate this information to stakeholders, wildlife managers and conservation groups.

Partnerships

Alberta Fish & Game Association, Canadian Forces Base Suffield, Canada Summer Jobs Program, Milstakis Institute of the Rockies, National Geographic Magazine, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), Alberta Summer Temporary Employment Program, Writing-on-Stone Provincial Park

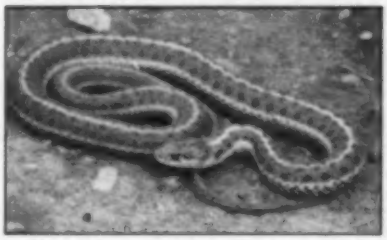
Wildlife Habitat Initiative in Low Disturbance Zones

Both consumptive and non-consumptive experiences in wild places promote a unique conservation ethic that motivates users to conserve not only these wild areas, but also the habitat that is found in closer proximity to our daily lives. One fundamental step in conserving wild species in wild places is to identify areas of high ecological value. The purpose of this project is to identify areas of important wildlife habitat with currently low levels of human disturbance. This information, once collated and communicated in a variety of approaches, could be used for a broad suite of purposes such as local assessments of development proposals or planning habitat restoration and enhancement work.

During our scoping process in 2010/11, we identified mineral licks as a habitat feature having high ecological value and a good feature to begin an ecological assessment process. We developed a protocol using camera traps to monitor daily and seasonal use of licks by wildlife, which will be implemented in the second year of the project. We will monitor a subset of mineral licks in southwestern Alberta to determine seasonal use of licks by various ungulate species, and to explore potential travel routes by ungulates to and from these seasonally-critical habitat features. In the second year of the project, we will continue to scope and identify other key wildlife habitats or areas of special interest, as combining multiple "high-value layers" will better represent the social and biological importance of wild areas within southwestern Alberta.

Partnerships

Alberta Sustainable Resource Development, Fish and Wildlife Division, Anatum Ecological Consulting



Wildlife Volunteer Program

In 2010/11, ACA's wildlife program undertook the first steps toward building a formal volunteer program that would allow conservation-minded groups and individuals to participate in ACA projects. By volunteering with ACA, the public can develop skills and gain knowledge relating to the environment while at the same time contributing to ACA's conservation initiatives. A major goal of ACA's volunteer program is to build a network of individuals and groups whose skills, interests, backgrounds and levels of commitment align well with those of ACA.

ACA's largest wildlife volunteer component at this time is the Alberta Volunteer Amphibian Monitoring Program (AVAMP). This program supports a global initiative to monitor amphibian populations in response to widespread declines in many jurisdictions. The program has a network of approximately 800 participants that receive the program's biannual newsletter. Participants may also choose to monitor and report on the presence of amphibians and reptiles in Alberta. The goal of AVAMP is to increase public awareness of amphibians and reptiles and the conservation issues they face, and to better understand their current distributions in Alberta through data collected by volunteers. In 2010/11, AVAMP participants submitted a total of 196 amphibian and 23 reptile observations, including four snake hibernacula (den) locations.

Partnerships

Alberta Sustainable Resource Development, TD Friends of the Environment Foundation

Fisheries Program

Sustainable and responsible participation in the social and consumptive use of fisheries resources

Creating fishing opportunities for Albertans

Our Lake Aeration and Enhanced Fish Stocking (EFS) projects provide Albertans with recreational angling in areas of the province where such fishing opportunities do not otherwise exist. These projects also help reduce pressure on limited native fish stocks, thereby helping protect and conserve these species.

We aerated 18 lakes, successfully preventing summer or winter fish kills, except for minor incidents of dead fish on two lakes due to the unusually long winter season. Under the EFS, we stocked over 131,100 catchable-size (i.e., 20-cm) rainbow trout into 60 lakes to create "put-and-take" trout fisheries where anglers are allowed to harvest up to five fish per day. Most stocked lakes are close to urban centres, making them very popular family destinations.

The Fisheries program also supported ACA staff graduate thesis research through Royal Roads University (Victoria, BC) that evaluated the effectiveness of stocked trout fisheries at meeting management goals and recreational angler expectations (this work has been submitted for publication in the scientific literature). Similarly, we collaborated with two University of Alberta graduate student researchers to determine if aeration and trout stocking negatively affect the biological integrity of recipient waterbodies. To date, these studies have documented few and minor negative effects on native fish, invertebrate, and amphibian communities in these lakes. This gives ACA confidence that these projects – while providing popular recreational angling opportunities to Albertans – do not compromise ecosystem integrity of recipient lakes.

Population monitoring

The Lotic (flowing water) and Lentic (still water) projects involve inventory and monitoring of priority fish species to provide information on composition, population structure, abundance and distribution, as well as to monitor angler use, harvest, and associated fisheries demographics. We undertook 10 surveys comprised of 16 lakes/ponds and five rivers, as well as interviewed 3,335 anglers during creel surveys. Focal sport fishes in our surveys include walleye, northern pike, bull trout, Arctic grayling, cutthroat trout and rainbow trout.

Our bull trout studies in the East Slopes drainages have identified key spawning tributaries, overwintering habitats, and sub-populations hitherto unknown. In addition, these results feed directly into the provincial and federal bull trout status assessment process. Arctic grayling populations in the province of Alberta have been severely declining since the 1950s primarily due to habitat fragmentation resulting from improperly installed or hanging culverts on streams. In 2010/11, we reviewed all available ACA stream crossing information and developed a prioritized list of problem culverts to be targeted for remediation. This information will be used to actively solicit funding for remediation from culvert owners or other interested stakeholders. We also continued our study on the use of a fish-based index of biotic integrity to assess ecological conditions of aquatic systems. As well, our previous work on the fish-based index of biotic integrity was published in a peer-reviewed scientific journal.

Riparian improvements

ACA riparian conservation uses management tools such as streambank fencing, bank stabilization, provision of off-channel watering for cattle, education and outreach to enhance, maintain and protect riparian habitats and ecosystem health. Many such riparian conservation activities are conducted in collaboration with private landowners, watershed groups, government, industry and other stakeholders. In 2010/11, we conducted several community outreach activities including demonstration tours, open houses and workshops to highlight our projects and increase public interest in the critical role riparian areas play in the landscape. Over 440 volunteers, including 230 high school students, spent more than 3,000 hours on various activities. In total, we initiated 21 on-the-ground riparian restoration projects, including four streambank fencing, two bank stabilization, two off-channel cattle watering systems, 10 cattle watering spring developments, and 13 tree planting projects totaling 31,000 seedlings. We also established new partnerships with six watershed groups. Overall, our 2010/11 projects protected approximately 10 kilometers of streambank and over 262 acres of riparian habitat.

Overall, the success of our Fisheries program activities in 2010/11 involved the support from over 75 partners, consisting of provincial and federal governments, industry, watershed groups, NGOs, counties/municipalities, universities, private landowners and other interested groups.

2010/11 Overview

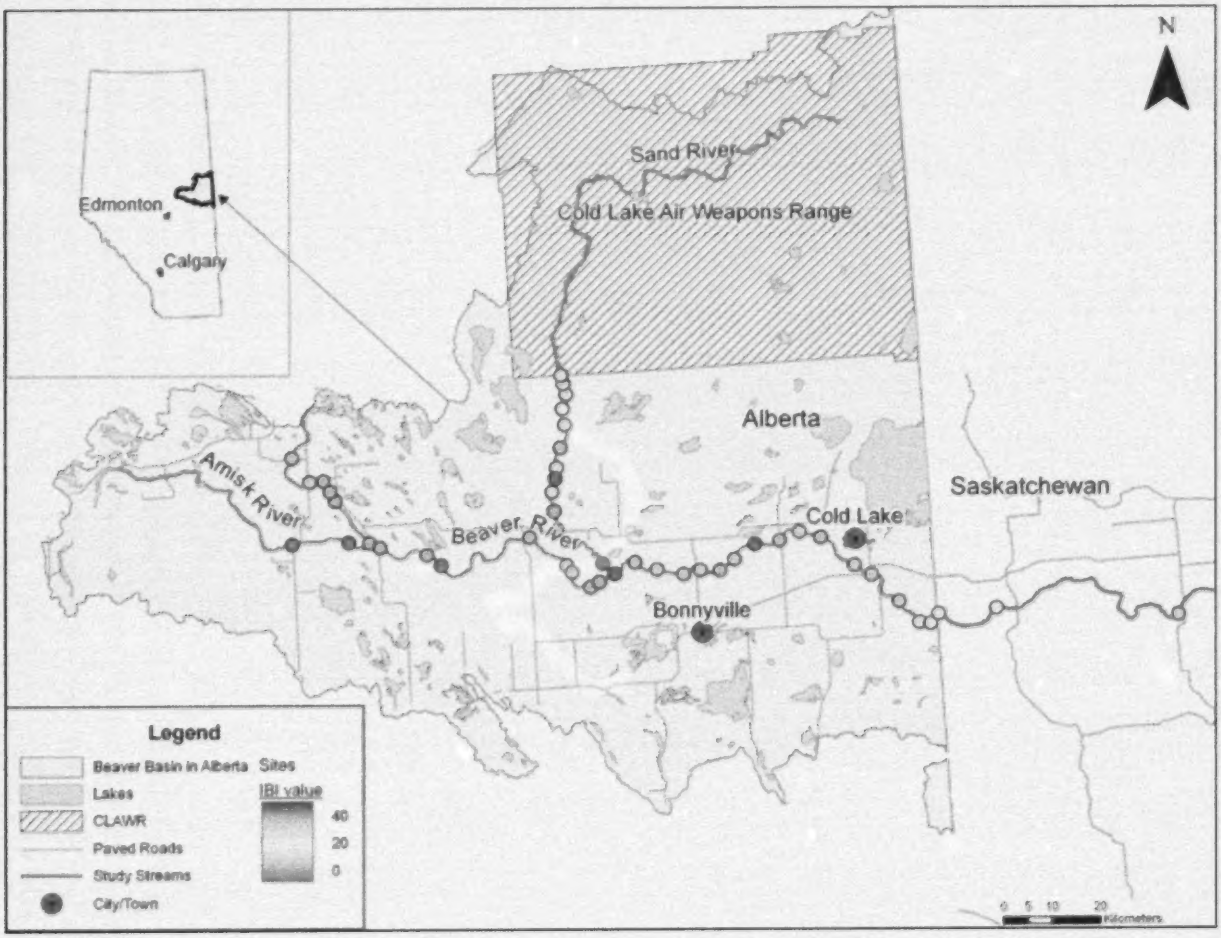
- *18 aerated waterbodies successfully overwintered fish*
- *130,000, 20-cm long rainbow trout stocked into 60 waterbodies*
- *10 fish surveys conducted on 21 waterbodies; generated information on population status, recreational harvest, distribution, migration, and spawning habitat of sport fish*
- *Sport fish surveyed: walleye, northern pike, lake trout, bull trout, Arctic grayling, cutthroat trout, and rainbow trout*
- *3,335 anglers interviewed during creel surveys*
- *21 on-the-ground riparian conservation enhancements protected 10 kilometres of streambank and over 262 acres (106 ha) of riparian habitat through fencing, bank stabilization, and tree planting*
- *31,000 seedlings and shrubs planted*
- *440 volunteers spent 3,000 hours on riparian conservation projects*

A Fish-based Index of Biological Integrity for Assessing Ecological Condition of the Beaver River

We collected information on fish assemblages, local and watershed variables to develop and validate an index of biological integrity (IBI) for assessing the health of the Beaver River. We selected four non-redundant fish metrics linked to human disturbance to construct the IBI. Results showed Beaver River watershed health is mainly affected by agricultural and industrial development. The IBI we constructed reflects the negative effects of development as the abundance of species less tolerant to perturbation decreased with an increase in riverbank disturbance. Disturbance is mainly due to cattle grazing and road density, which can be surrogates for development of the agricultural and oil and gas industries. Our IBI will provide resource managers with a rapid assessment tool for characterizing aquatic ecosystem health within the Beaver River watershed.

Partnerships

Alberta Environment, Alberta Sustainable Resource Development, Alberta Tourism, Parks and Recreation, Beaver River Watershed Alliance, Municipal District of Bonnyville

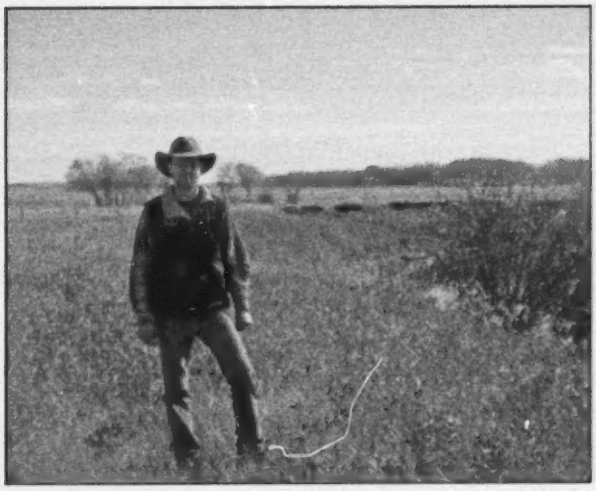


Bearberry Creek Riparian Conservation

Land use practices and development within the Bearberry Creek drainage have degraded riparian and aquatic habitats, negatively impacting water quality and fish populations. The goal of this program is to facilitate the re-establishment of a recreational fishery within the drainage by improving the health of riparian areas. In 2010/11, we constructed one bank stabilization project using bioengineering techniques, totaling 3,600 metres^3 of enhanced riparian habitat. We assessed existing projects and completed several major repairs. As part of public outreach activities, we made a presentation to a local high school environmental class, which included an electrofishing demonstration that was covered and advertised by a local newspaper. We also completed invertebrate sampling indexes and water quality work on 16 sites. We found the invertebrate community was dominated by two pollution-tolerant families: mayflies (*Baetidae*) and midge flies (*Chironomidae*). Fecal coliform counts were high, likely due to cattle fecal contamination.

Partnerships

Alberta Environment, Alberta Sustainable Resource Development, Cows and Fish, Fisheries and Oceans Canada, Mountain View County, Mountain View Gazette, Olds College, Penn West Energy, Red Deer River Watershed Alliance, Royal Bank of Canada, Sundre High School



Beaverlodge Riparian Conservation

Riparian areas of the Beaverlodge River are degraded due to native vegetation removal and are in need of restoration and protection. We helped restore four sites on streams in the Beaverlodge River drainage and in return received signed ACA habitat enhancement agreements. These projects protected a total of 38 hectares. We assisted the County of Grande Prairie and Alberta Agriculture and Rural Development in the delivery of tree planting projects. Professional tree planters planted a total of 30,178 trees at 12 sites, including four sites where ACA habitat enhancement agreements were signed. We supplied fencing material to assist a landowner in protecting 866 metres of streambank, planted trees and provided an off-site watering system to assist in livestock management. We supported the continued development of the West County Watershed Group (WCWG) as the key to fostering long-term riparian awareness and conservation. The WCWG took the lead in identifying project sites, determining project priorities, providing participants in landowner recognition (signs), and providing volunteers for water sampling. This important, local, community-driven, riparian conservation initiative will be further supported by ACA in 2011/12.

Partnerships

Alberta Agriculture and Rural Development, ConocoPhillips, County of Grande Prairie, Environment Canada, Penn West Energy, Royal Bank of Canada, West County Watershed Group

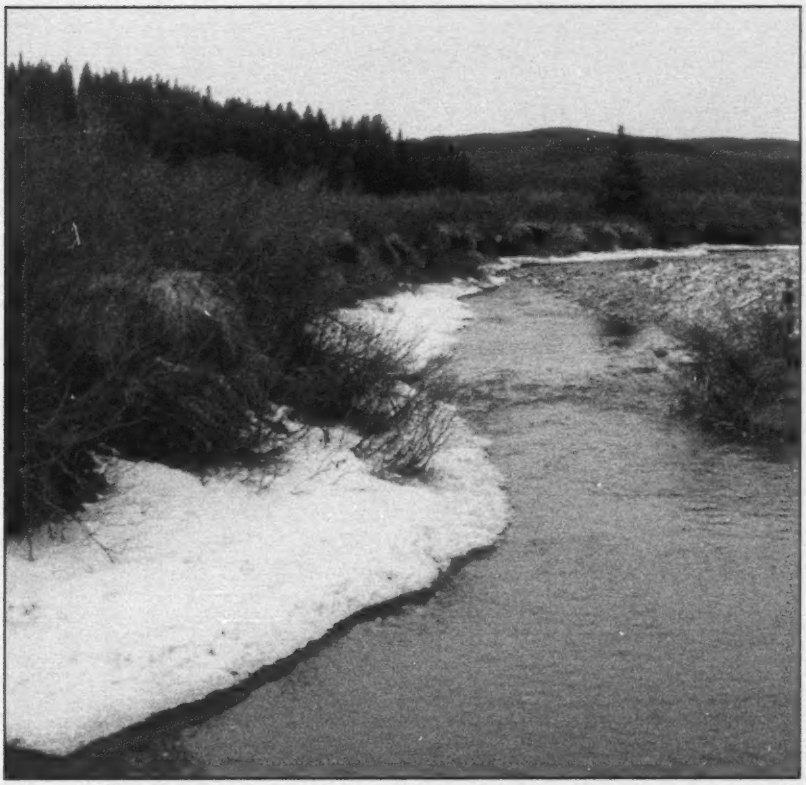
Mike Rodtka, Senior Biologist; Erin Vandermarel, Junior Biologist; Kelly Hooey, Junior Biologist, ACA.
Processing fish for Sundre School.

Clearwater Drainage Bull Trout Abundance Assessment

According to Alberta Sustainable Resource Development's ranking system, the majority of Alberta's bull trout populations are classified as being *At Risk* or *High Risk* of extirpation. As a result, they require updated abundance information for managers to monitor population trends. The Clearwater core area's bull trout population is classified as being *High Risk* for extirpation. We used single pass capture data from inventory sites as well as capture-mark-recapture estimates to quantify spatial distribution and abundance of bull trout in Elk Creek, a tributary to the Clearwater River. These data will be used to update the status of bull trout in the Clearwater core area. During April, we electrofished 15 systematically-distributed sample sites for a total sample distance of approximately 3.7 kilometres of Elk Creek. We captured bull trout at 14 of the 15 inventory sites. We captured 135 bull trout that ranged in size from 59 – 326 millimetres (mm) in fork length, but did not include enough adult bull trout (≥250 mm fork length) for valid abundance estimates and therefore included bull trout ≥70 mm in fork length. We estimated abundance of bull trout to be 1,031 (95% confidence interval = 827 – 1,327) with the greatest density occurring 23 kilometres upstream from the mouth of Elk Creek.

Partnerships

Alberta Sustainable Resource Development



Crowsnest Drainage Sport Fish Population Assessment – Phase 2

The Crowsnest River is one of the most popular trout fisheries in Alberta. However, increased angling pressure, habitat degradation from recreational and industrial activities, and invasion of other less popular introduced species threaten the fishery. This study monitors populations of rainbow trout and native mountain whitefish, the two primary species in the sport fishery, using electrofishing and mark-recapture techniques. Of 3,979 salmonid fish captured in the Crowsnest River, 65% were rainbow trout and 30% were mountain whitefish. Estimated abundance of rainbow trout in the main stem was 80,131 fish, including 8,501 legal-harvest size, 5,290 quality, and 1,445 above slot size. Estimated abundance of mountain whitefish was 16,517 fish, including 7,340 legal-harvest size, 3,816 quality, and 1,743 above slot size. Estimated tributary population of oncorhynchid trout species (westslope cutthroat trout, rainbow trout and their hybrids) was 60,637 individuals, of which 34% resided in Blairmore Creek. Invasive brook trout were most numerous in Allison Creek (n = 3,551), more than doubling the native cutthroat trout. Total main stem abundance was nearly five times greater for rainbow trout than for mountain whitefish, whereas the proportion of legal-harvest-sized fish was greater for mountain whitefish (43%) than for rainbow trout (10%). In terms of drainage-scale native species distributions, bull trout remain restricted to below Lundbreck Falls and the Crowsnest River main stem, while cutthroat trout remain primarily restricted to headwater tributaries above barriers.

Partnerships

Alberta Sustainable Resource Development, Devon Canada Corporation

Edson River Riparian Conservation

ACA has identified the Edson River and its tributaries as a riparian program priority watershed. Degraded riparian habitats within the drainage have contributed to erosion, decreased water quality and the decline of sport fisheries. Through rehabilitation and enhancement of riparian areas we aim to improve in-stream conditions to the point where they can support the recolonization and maintenance of sport fish populations. In 2010/11, we used aerial videography techniques to characterize current riparian health. We also used past reports, anecdotal information and field reconnaissance to identify potential remediation sites. Furthermore, we solicited project support and involvement from other organizations and individuals to foster creation of a local watershed group. Videography scores indicated that nearly 50% of the riparian areas along the main stem Edson River are degraded, while 21% of riparian areas along tributaries are degraded. We identified 10 key sites for riparian enhancement projects and made plans to meet with landowners in the upcoming season.

Partnerships

Fisheries and Oceans Canada, Penn West Energy, Royal Bank of Canada

Enhanced Fish Stocking Project

The Enhanced Fish Stocking Project (EFSP) provides anglers with increased opportunities to catch and harvest 20-cm rainbow trout in parts of Alberta where angling opportunities are limited or do not exist. Recipient waterbodies are prone to winterkill, and as a result require annual rainbow trout stocking to maintain angling opportunities. We stocked a total of 60 waterbodies with 131,100 rainbow trout during 83 stocking events in 2010. We delivered all rainbow trout stockings through contracts with private growers. We completed approximately 70% of the rainbow trout stockings prior to the May long weekend. A total of 1,122 rainbow trout stockings have occurred within the EFSP since 1998 when ACA assumed responsibility for the project. Approximately 1.71 million rainbow trout have been stocked during this 13-year period.

Partnerships

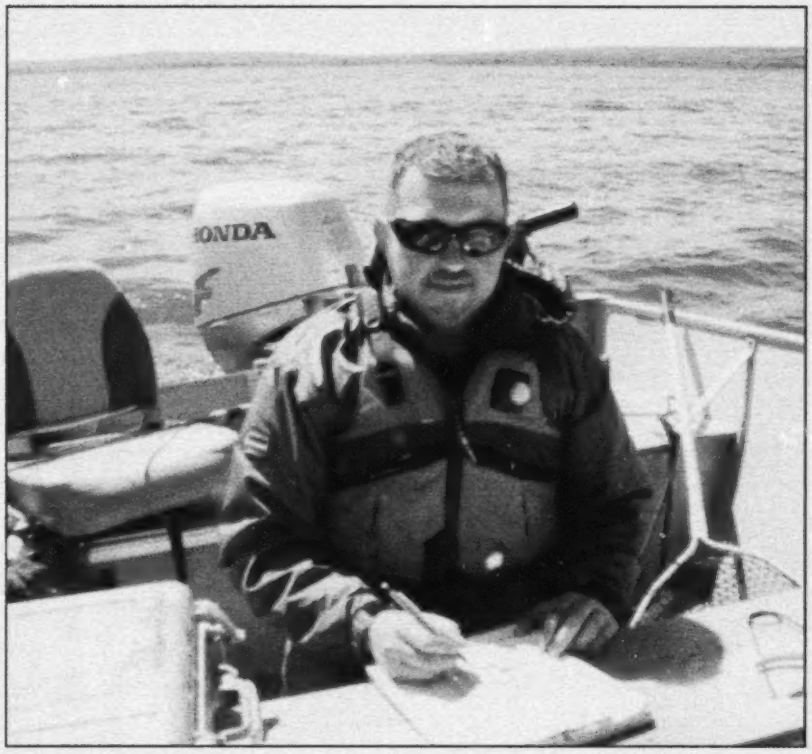
Alberta Sustainable Resource Development

Lake Aeration

We aerate waterbodies as a management technique to provide Albertans with recreational angling opportunities in areas of the province where such fishing opportunities would not otherwise exist. Aerated waterbodies are typically shallow, feature an abundance of oxygen-depleting algae, experience prolonged ice cover, and are prone to both summer and winter fish kills. In 2010/11, we aerated 18 waterbodies to maintain habitats that promote year-round survival of stocked trout. We maintained year-round dissolved oxygen levels at >3 mg/L in aerated waterbodies. All of our winter-aerated waterbodies successfully overwintered trout with no incidents of winterkill. Similarly, there were no reports of summerkills at any of our aerated waterbodies. We identified and continued to develop potential aeration opportunities to create or enhance angling opportunities. We established and maintained financial and in-kind partnerships on existing and new aeration projects.

Partnerships

Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish and Wildlife Division, Alberta Tourism, Parks and Recreation, Canadian Forest Products Ltd., Clearwater County, County of Stettler, Devon Canada Corporation, Daishowa-Marubeni International Ltd., Fisheries Enhancement Society of Alberta, Northern Sunrise County, Shell Canada Energy, Tay River Environmental Enhancement Fund (Shell Canada Energy), Town of Fairview, Village of Spring Lake, Weyerhaeuser Canada Ltd., TransAlta



Lentic Sport Fishery Surveys: Floatingstone, Garner, Snipe and Winagami Lakes

High fishing pressure, coupled with slow-growing and late-maturing populations, have resulted in the over-harvest of many of Alberta's sport fish populations, especially walleye and northern pike. To generate information required for effective management of these species, we conducted creel surveys on four lakes using both single access (Snipe and Winagami lakes) and camera-based (Floatingstone and Garner lakes) methods during the summer of 2010. Estimated angling pressure was 4.43 hours per hectare at Snipe Lake and 1.63 hours per hectare at Winagami Lake. Catch rates were higher at Snipe Lake (0.07 fish per hour for walleye and 1.29 fish per hour for northern pike) than at Winagami Lake (0.03 fish per hour for walleye and 0.86 fish per hour for northern pike). Similarly, harvest was higher at Snipe Lake with a total of 205 walleye and 1,994 northern pike, while Winagami Lake had a total harvest of 30 walleye and 1,403 northern pike. Estimated angling pressure was 5.2 hours per hectare at Garner Lake and 3.8 hours per hectare at Floatingstone Lake. Catch rates were higher at Garner Lake (0.62 fish per hour for walleye and 0.35 fish per hour for northern pike) than at Floatingstone Lake (0.08 fish per hour for walleye and 0.26 fish per hour for northern pike). Harvest of walleye at Garner Lake was 210 walleye and 399 northern pike. While regulations prohibited harvest of walleye at Floatingstone Lake, anglers harvested 39 northern pike.

Partnerships

Alberta Sustainable Resource Development

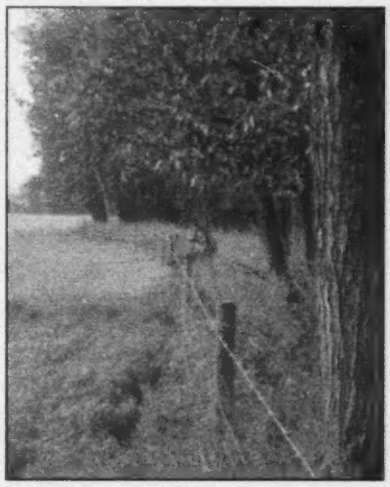
Michael Merriam, Seasonal Technician, ACA at Snipe Lake.

Lesser Slave Lake/ South Heart Riparian Conservation

Riparian areas – the narrow strips of land adjacent to rivers and lakes – in the Lesser Slave Lake watershed are under constant pressure from human-related developments. Since 2004, ACA has been working with the High Prairie Riparian Action Team and landowners to protect and restore these areas. We identified three potential project sites in 2010. We commenced fencing at one of these sites that will extend over 1,870 metres and protect 26 hectares when it is completed in 2011. A second site received 723 metres of fencing, and the third is scheduled for fencing in 2011. We assessed the health and integrity of the Swan River watershed using aerial videography. Overall, reaches assessed on the Swan River and the two assessed tributaries were in good condition (88%), with 5% rated as fair and 7% as poor. Development by industry and landowners continued unabated on the shoreline of Lesser Slave Lake and its tributaries; overall there appears to be dwindling local interest in riparian restoration.

Partnerships

Fisheries and Oceans Canada, High Prairie Riparian Action Team, Lesser Slave Lake Watershed Council, Penn West Energy, Royal Bank of Canada



Life History Strategies and Spawning Demographics of Bull Trout in the Upper Red Deer River Drainage

Pinto Creek (tributary to North Burnt Timber Creek) was believed to be an important bull trout spawning stream in the upper Red Deer River drainage and was closed to angling in 1982; however, bull trout abundance and spawning use of this stream have not been evaluated. In July 2009, we estimated the abundance of bull trout in Pinto Creek to be 8,395 fish and we documented 56 bull trout redds in 14 kilometres of stream. In 2010, we captured 52 adult bull trout (eight moving upstream from North Burnt Timber Creek into Pinto Creek and 44 migrating downstream out of Pinto Creek into North Burnt Timber Creek). We documented 18 bull trout redds in Sheep Creek, indicating its importance as a spawning location for bull trout. In the remainder of the streams surveyed, we documented zero to 11 bull trout redds. Data collected through this project will be used to make informed management decisions regarding bull trout in Pinto Creek.

Partnerships

Alberta Sustainable Resource Development, Shell Canada Energy/Suncor Energy Inc., Panther River Environmental Enhancement Legacy Fund

Red Deer – Battle River Riparian Conservation

Many of the riparian areas in the Red Deer River and Battle River watersheds have been negatively affected by the impacts of numerous types of industrial activity. Our project focuses on protecting and enhancing riparian habitats in these two watersheds. Since the project began in 1999, we have completed nine restoration projects in partnership with landowners, government, and other conservation organizations. In 2010/11, we inspected riparian enhancements at five project sites, conducted public outreach activities with the Alberta Stewardship Network, and completed a report summarizing results over the 11-year duration of the project. Riparian health at project sites either did not change or improved slightly since the previous year; one site was classified as unhealthy, three sites as healthy with problems, and one site as healthy. An estimated 100 people participated in community outreach activities.

Partnerships

Agriculture and Agri-Food Canada, Alberta Agriculture and Rural Development, Alberta Environment, Alberta Stewardship Network, Alberta Sustainable Resource Development, Cows and Fish, Fisheries and Oceans Canada, Grey Wooded Forage Association, Lacombe County, Penn West Energy, Ponoka County, Red Deer County, Royal Bank of Canada

Emily Turton, Intermediate Biologist; Chad Judd, Intermediate Biologist, ACA. Constructing fish trap on Pinto Creek.

Southern Riparian Conservation

For the past decade, ACA has supported riparian enhancement initiatives in southern Alberta. Past projects involved working with the Beaver Creek Watershed Group, Todd Creek Watershed Group and individual landowners. Six more watershed groups in the south have been engaged and several key conservation groups view ACA as a valuable partner. We established landowner partnerships for a riparian pasture project, a spring development project on Todd Creek, and a shrub planting (approximately 1,000 willows) and riparian fence extension project on Five Mile Creek. We also participated in an educational school field day with the Drywood/Yarrow Conservation Partnership involving over 100 high school students, the "Blueweed Blitz" weed pull and education day involving 100 volunteers, and the Yellow Fish Road event with the Pincher Creek Watershed Group involving approximately 80 school students. We also provided partner funding for an off-site solar watering unit for the Lyndon Creek Watershed Group, and provided funding to the Indianfarm Creek Watershed Group to complete a bioengineering project. Furthermore, we attended workshops and meetings with other watershed groups, partnering conservation groups and interested parties (Lafarge Canada). There remains continuing opportunities and interest to implement projects and improve riparian health in the south. Our continued involvement with watershed groups and their partners will be a valuable asset in facilitating riparian conservation.

Partnerships

Alberta Agriculture and Rural Development, Alberta Riparian Habitat Management Society, Cows and Fish, Alberta Sustainable Resource Development, Beaver Creek Watershed Group, Drywood/Yarrow Conservation Partnership, Indianfarm Creek Watershed Group, Lafarge Canada, Lyndon Creek Watershed Group, MULITSAR, Oldman Watershed Council, Penn West Energy, Pincher Creek Watershed Group, Prairie Farm Rehabilitation Administration, Royal Bank of Canada, Southwestern Alberta Conservation Partnership, Todd Creek Watershed Group, Trout Unlimited Canada, Waterton Watershed Group

Stream Crossing Remediation

Arctic grayling populations in Alberta have been severely declining since the 1950s, primarily due to habitat fragmentation resulting from improperly installed or hanging culverts. To generate information to aid in mitigating these declines, we reviewed ACA stream crossing information and developed a stream crossing site prioritization process for five northern watersheds. We prioritized sites for remediation based on the following criteria: stream order, fish presence at crossing, proximity to fish-bearing water, and quantity of upstream habitat above barrier. Of the five watersheds assessed, the Swan River had the greatest number of stream crossings with potential fish passage barriers (74%, n = 351).

Partnerships

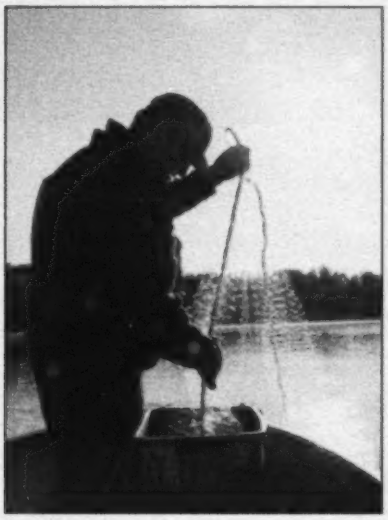
None

Trout Stocking Evaluation 2008/10

Creating sport fisheries by stocking rainbow trout benefits both anglers and fisheries managers by increasing opportunities. The main underlying assumptions of this stocking are: stocking creates populations; populations create quality fisheries; and quality fisheries attract numerous and satisfied anglers. We tested these assumptions with fisheries monitoring techniques including a social survey. Stocking created low density populations and low quality sport fisheries, and attracted very large numbers of satisfied anglers. Angler satisfaction was consistently high when catch was >0.20 fish per angler-hour and satisfaction was primarily due to the stocked lakes being "close to home". There was no difference in anglers' catch, participation and satisfaction after an 80% reduction in stocking rate. This suggests stocking should focus on determining the density that creates optimal catch, participation and satisfaction, while regulating costs.

Partnerships

Alberta Fish & Game Association – Morinville Chapter and Onoway Chapter, Alberta Summer Temporary Employment Program, Alberta Sustainable Resource Development, Canada Summer Jobs, TD Friends of the Environment Foundation



Upper Oldman Drainage Adult Bull Trout Population Abundance and Distribution

Bull trout populations in most of Alberta's East Slope drainages are in decline due to habitat loss, creation of migration barriers, over-fishing, and the introduction of non-native fish species. In the upper Oldman (UOM) drainage, industrial and recreational activities are a considerable threat to the continued viability of bull trout populations. Consequently, we initiated a four-year study to estimate the abundance of migratory adult bull trout and to identify key spawning tributaries in the UOM drainage. We installed conduit fish traps in four key spawning tributaries (Hidden Creek, Livingstone River, Racehorse Creek and Dutch Creek) to capture and mark post-spawn migratory bull trout exiting these spawning tributaries. We also conducted redd surveys to determine the distribution of bull trout spawning habitat in the drainage. From 2007 to 2010, we trapped and tagged 291 migratory adult bull trout in spawning tributaries, of which 78.3% (n = 229) were from Hidden Creek, 8.6% (n = 25) each from Racehorse Creek and Dutch Creek, and 4.5% (n = 16) from the Livingstone River. Estimated abundance for the Hidden Creek bull trout subpopulations was 388 fish (95% confidence interval = 331 – 445 fish); abundance estimates for the Livingstone River, Racehorse Creek and Dutch Creek were unsuccessful due to low recapture rates. In all years, bull trout redd counts were consistently higher in Hidden Creek than all other streams, suggesting this creek is the most critical bull trout spawning tributary in the UOM drainage. In the Livingstone River, Dutch Creek and Racehorse Creek, total number of redds was considerably higher than total number of migratory fish captured in traps, suggesting the presence of stream-resident bull trout in these streams.

Partnerships

Alberta Sustainable Resource Development, Devon Canada Corporation

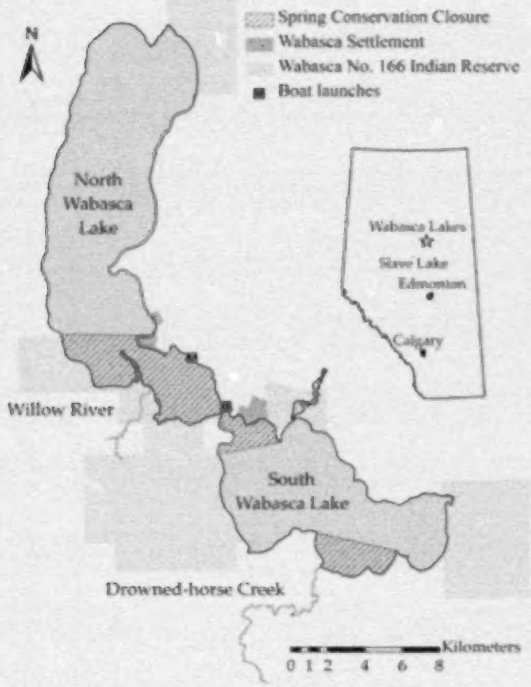
Brendan Ganton, Intermediate Biologist, ACA.

Wabasca Lakes Walleye Movement Study

Domestic and recreational harvest is a potential threat to the sustainability of walleye populations in North and South Wabasca lakes. In 2008, spring closure zones were established surrounding two inlets, Drowned-horse Creek and Willow River on North and South Wabasca lakes respectively to prevent the harvest of walleye on spawning grounds between March 1 and May 31. We assessed the spatial and temporal effectiveness of these closure zones by using radio telemetry to track the distribution of walleye before, during and after the spawning season. From 2008 to 2010, we implanted 65 mature walleye with radio tags (41 in North Wabasca Lake and 24 in South Wabasca Lake) and monitored their movements from April through September using both boat and aerial surveys. The majority of tagged fish occupied the closure zones until June 2 in South Wabasca Lake and until May 27 in North Wabasca Lake. Throughout the study, angler use occurred exclusively on North Wabasca Lake. Comparisons indicated no genetic differentiation between walleye from the two lakes and approximately 4% of fish moved between lakes. This study will provide Alberta Sustainable Resource Development with useful information to aid in the management of these two lakes.

Partnerships

Alberta Sustainable Resource Development

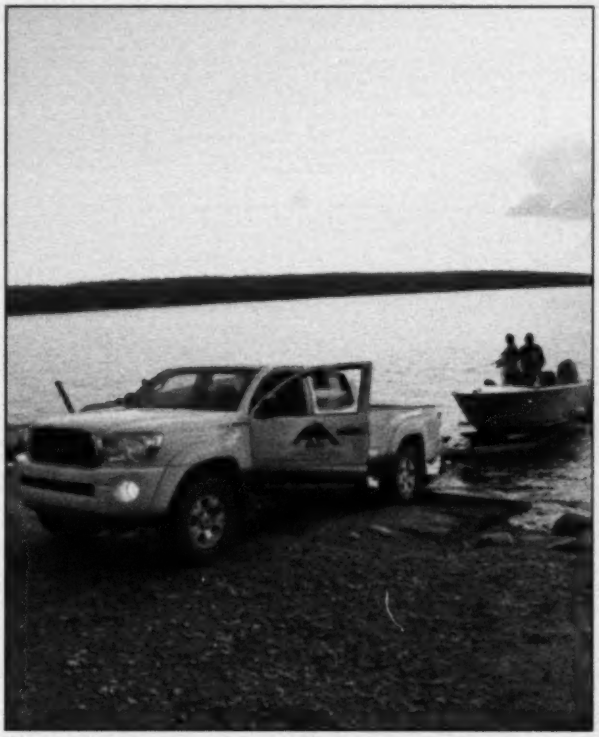


Walleye Stock Assessment

Walleye populations in Alberta are susceptible to over-harvest due to the interplay of high fishing pressure, late maturity and slow growth rates. To facilitate the protection and recovery of walleye fisheries in the province, Alberta Sustainable Resource Development implemented the Alberta Walleye Management and Recovery Plan (AWMRP) in 1995, under which lake-specific management strategies were developed. As part of the AWMRP, we conducted gill net surveys in Pigeon and Buck lakes in the fall of 2010 to examine population structure and growth characteristics of walleye. Catch rate of walleye in Pigeon Lake was 29.0 fish per 100 m^2 of net per 24 hours and size ranged from 190 to 523 millimetres (mm) fork length, with the majority of the population between 400 to 500 mm in size. Age ranged from 1 to 13 years (mean age = 9.2 years), with the population dominated by age 12 fish. In Buck Lake, catch rate was 28 fish per 100 m^2 of net per 24 hours and size of walleye ranged from 165 to 492 mm, with the majority between 300 to 450 mm in size. Age ranged from 1 to 16 years, with the population dominated by ages 4 and 5 fish. Walleye populations in both lakes exhibited wide (>8 year classes) and stable age-class distributions. The information collected will help managers determine the status of these walleye populations and aid in future management decisions.

Partnerships

Alberta Sustainable Resource Development



Land Program

Conserve, protect and enhance wildlife and fish habitat and promote responsible recreational opportunities

Expanding the footprint of conservation

We acquired 12 new Conservation Sites and one Conservation Easement this past year, covering over 4,300 acres (1,740 ha) and worth in excess of $9 million. In addition, we expanded the protection of two existing Conservation Sites by 1,370 acres of Crown land using protective notations together with Alberta Sustainable Resource Development. Most of our acquisitions have been collaborative efforts with ACA Habitat Securement Funds, partners such as Alberta Fish & Game Association, Ducks Unlimited Canada, Nature Conservancy of Canada and Pheasants Forever, government, Environment Canada's Ecological Gifts Program, the David Bissett Foundation and corporate partners. With the help of Suncor Energy Foundation and Shell Canada Energy, we continued to implement a terrestrial conservation program in the Boreal regions of Alberta.

Private landowners are also a big part of our conservation efforts. Our Landowner Habitat Program (LHP) is designed to conserve key wildlife and fish habitat and enhance recreational access on deeded lands using term agreements. We currently manage 57 LHP agreements protecting 9,262 acres (3,748 ha) of habitat, including an additional 1,400 acres (567 ha) of habitat conserved on private lands this year alone. Notably, we signed two new habitat retention agreements along the important North Raven River and renewed an additional seven agreements in other areas of the province. We gratefully acknowledge private landowners who partnered with our LHP or who graciously donated land or conservation easements to ensure these areas remain protected in perpetuity.

Improving habitat quality – naturally

Our efforts go far beyond habitat securement: we also actively manage our lands to control invasive weeds, maintain fences and other infrastructure, conduct site inspections, enhance, restore and monitor habitat and expand partnerships to assist with site stewardship. In 2010/11, ACA staff and seasonal employees spent over 11,000 hours completing inspections and maintenance on over 140 Conservation Sites across Alberta, covering nearly 100,000 acres (40,469 ha) of habitat.

Increasingly, our work focuses on enhancing and restoring habitat at our Conservation Sites to improve habitat quality for wildlife and fish species. Last year, we completed habitat enhancements on 27 Conservation Sites, including development of an eight-acre wetland, reseeded native grass and cattails, enhanced upland bird and ungulate forage habitat, planted over 40,000 trees and shrubs, built waterfowl nest tunnels and nest boxes, conducted weed control projects and site preparation for various vegetation enhancements. We also installed new signage at 31 Conservation Sites.

Fisheries access sites provide enhanced opportunities for anglers to access key streams, stocked ponds and lakes, thereby increasing quality recreational opportunities for public use. Last year, we inspected and maintained 31 fisheries access sites, including 10 sites that benefitted from various upgrades and enhancements. We increased the number of in-kind and financial partnerships by 15% from the previous year. Volunteer stewards, industry, government, municipalities, various corporate partners and other organizations collaborated with us on these projects.

Your Guide to the great outdoors

The *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide* profiles 700+ Conservation Sites covering over 250,000 acres (101,171 ha) across Alberta. Secured by ACA and our partners, the sites offer all types of sustainable recreational opportunities including hunting, angling, photography, wildlife viewing and hiking. It is our hope that these opportunities will connect more people to the outdoors and promote the value of habitat conservation for future generations.

Overall, the success of our Land Management program activities in 2010/11 involved the support and effort of over 80 partnerships, including government, industry, NGOs, counties/municipalities, leaseholders, private landowners, corporate partners and other interested groups.

2010/11 Overview

- *12 new Conservation Sites secured totaling 4,300 acres*
- *$9,000,000 in lands secured (approximate value)*
- *1,486 acres of habitat protected using landowner habitat retention agreements*
- *141 Conservation Sites inspected*
- *27 Conservation Sites underwent habitat enhancements*
- *11,000 hours spent by ACA staff on Conservation Site management and maintenance*
- *10 Fisheries Access Sites received upgrades and enhancements*
- *31 new Conservation Site signs installed*
- *26 Conservation Sites required recommendations on land use referrals*
- *53 management plans completed*

Erin Vandermarel, Junior Biologist, ACA
Blackstone-Wapiabi Elk Aerial Survey

Conservation Site Management

ACA is responsible for the annual maintenance and management of over 200,000 acres of titled and Crown land in Alberta. Our Conservation Site Management Program is responsible for the majority of these conservation assets in accordance with site management plans. Specific objectives of this program are to: deliver the program in an efficient and timely manner, complete inspections and necessary maintenance on Conservation Sites, and enhance or restore habitat on Conservation Sites. Our work is done with the participation and support of our numerous partners throughout Alberta.

In 2010/11, we inspected and maintained 142 Conservation Sites for wildlife and fish habitat and recreational opportunities through the Conservation Site Management Program.

We completed routine maintenance on 44 properties, including mechanical and chemical vegetation control, fence repairs, nest box repairs, and other general site and trail maintenance. We installed 29 Conservation Site signs and provided recommendations on 26 land use referrals. We also managed public access on two sites through a reservation system.

We completed enhancement projects on 27 Conservation Sites, including the development and restoration of two wetlands, enhancement of fish habitat along the North Raven River, planting of 30,000 spruce trees, 11,000 shrubs, and reseeding of grass/forb mixes to benefit ungulates, upland game birds and waterfowl. We also completed access enhancements at two sites to benefit outdoor enthusiasts and completed the second year of a trial weed control project using goat browsing to control toadflax.

Partnerships

Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish and Wildlife Division and Lands Division, Beaver Hills Initiative, Cameron Development Corporation, Clear Water Land Care, Clearwater County, County of Lethbridge, County of Newell, County of Warner, Ducks Unlimited Canada, Eastern Irrigation District, Edmonton and Area Land Trust, Nature Conservancy of Canada, North Raven River Working Group, Partners in Habitat Development, Pheasants Forever, landowners, Shell Canada Energy, Strathcona County, Strathcona Wilderness Centre, Suncor Energy Foundation, Total E&P Canada, TransCanada Pipelines, Tree Canada, Trout Unlimited Canada – Central Chapter

Corporate Partners Program

Through this program, ACA works with corporate partners to secure important native habitat areas for wildlife and enhance recreational opportunities for Albertans. It is guided by agreements developed with corporate partners and by selected priority 'Focus Areas'. Corporate partnerships and collaborations with other conservation agencies allow ACA to maximize assets and overall efficiency of our securement programs. Together in 2010/11, we secured six new Conservation Sites totaling 1,080 acres of high-quality habitat with a land value of approximately $1,300,000.

Partnerships

Alberta Fish & Game Association, Environment Canada's Ecological Gifts Program, Shell Canada Energy, Suncor Energy Foundation

Corporate Partner Securement Transactions in 2010/11

Name	Corporate Partner	Size (ac)	Special Features
Flatbush 6 SE28-66-2-W5M	Suncor Energy Foundation	140	To the south and southeast Flatbush 6 are two ACA titled properties, Flatbush 2 and 3 respectively. To the east, the land is under a mixture of cultivation and forested land. To the north, the area is dominated by crown land. The Pembina River flows 3.2 km to the west of this site; the Athabasca River, 6 km.
Flatbush 5 SW30-66-1-W5M SE30-66-1-W5M	Shell Canada Energy	316	Flatbush Conservation Sites 2, 3 and 6 are 1.6 kilometres west of this site. The property consists of a mixture of historical agricultural land and forested areas, and is bordered on the north by lowland habitat. Wildlife found in the area includes moose, elk, white-tailed and mule deer, black bear, grouse and a variety of waterfowl, small mammals and songbirds.
Karvonen 2 NW7-67-18-W4M	Suncor Energy Foundation	143	Karvonen 2 Conservation Site is a unique property located on the shores of Amisk Lake. With a size of 143.4 acres, this property is pristine habitat in an area where boreal forest is rapidly being lost. Notable wildlife species include pileated woodpecker, common loon, white-breasted nuthatch, northern waterthrush, black bear, moose, elk and beaver.
North Fawcett 5 SE18-65-1-W5M	Suncor Energy Foundation	160	The site consists of upland, riparian and wetland habitat, and supports numerous wildlife species including white-tailed and mule deer, black bear, grouse and a variety of small mammals and songbirds.
North Fawcett 7 SW7-65-1-W5M	Suncor Energy Foundation	160	The habitat is a mixed wood forest dominated by spruce, with pine and tamarack occurring in select locations throughout the site. A heterogeneous landscape of dry upland areas and low-lying wetlands make this unique property.
Warrensville NW23-84-23-W5M	Suncor Energy Foundation	161	The majority of the land to the south and north east is a mixed landscape of forested and agricultural land. To the northwest, forest dominates. Lac Cardinal, an important waterfowl lake, lies 6.5 kilometres southwest of the property and several other smaller water bodies are scattered across the surrounding landscape.
TOTAL		1080	

Fisheries Access Site Management

ACA's Land Management Program encompasses activities intended to conserve, protect and enhance wildlife and fish habitat and to increase sustainable recreational opportunities including angling and hunting. One of the activities of the program is the management of fisheries access sites across Alberta. The Fisheries Access Site Management Program provides angling opportunities to key streams, rivers and lakes throughout the province. We maintained 31 fisheries access sites in 2010/11, and upgraded 10 sites with improvements to parking areas and/or roads (three sites), day use facilities such as outhouses and garbage disposal bins (four sites), signage (two sites), as well as pumping water levels at one site to full supply. In 2010/11, we increased our partnerships by 15% compared to the previous year.

Partnerships

Alberta Environment, Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish and Wildlife Division and Lands Division, Alberta Tourism, Parks and Recreation, Braxxon Excavation, Canfor, Clearwater County, Compton Petroleum, County of Camrose, County of Newell, County of Stettler, County of Warner, Daishowa-Marubeni International Ltd., Devon Canada Corporation, Dickson Fish and Game, Grimshaw Agricultural Society, Hillcrest Fish and Game, Lamont Fish and Game, Mancal Energy Inc., Municipal District of Sunrise County, Municipal District of Rocky View, North Raven River Working Group, North Shore Environmental Consultants, RTC Services Ltd., Shell Canada Energy, TAQA North, Town of Lamont, Trout Unlimited Canada – Central Chapter and Yellowhead Chapter, Volunteer Stewards, Weyerhaeuser, Zama Lake Society

Landowner Habitat Program

Alberta's natural land base is under intense pressure from a variety of sources. Population growth in Alberta since 2005 averaged around 91,000 new people per year. Expansion of urban areas contributes to habitat loss and fragmentation. Land in crops has increased by about 500,000 hectares (1.2 million acres) since 1986. Industrial activities related to oil and gas and mining contribute to habitat loss, fragmentation and degradation. In 1986, Alberta Fish and Wildlife Division launched the Landowner Habitat Program (LHP) to prevent the destruction of native habitat on privately-owned lands. The program was structured to make annual or lump-sum payments to landowners who agreed to retain wildlife habitat on private land. While the program provided a cost-effective tool for preserving habitat, it did not guarantee recreational access to the habitat.

In 2008, ACA modified the LHP agreement to address recreational access. This program requires landowners to provide reasonable public foot access to habitat under agreement in addition to conserving habitat. 2010/11 was the third year that ACA offered these agreements to landowners. Many landowners with expiring agreements who we approached were unwilling to provide reasonable public foot access. Seven landowners agreed to the terms of the new program and signed five to 20-year agreements. These agreements conserve 1,468 acres and provide reasonable public foot access for recreational opportunities. We currently manage 57 LHP agreements protecting 9,262.7 acres of wildlife and fish habitat.

Partnerships

Landowners

Habitat Securement Program

Through this program, ACA acquires important wildlife and fish habitats using specifically allocated habitat securement funds. These habitats provide Alberta's outdoor enthusiasts with year-round recreational opportunities for a variety of outdoor pursuits. The program is guided by provincially-developed priority 'Focus Areas' that help prioritize securement efforts and opportunities. Partnerships, land donations and collaborations with other conservation agencies allow ACA to maximize assets and the efficiency of habitat securements.

In 2010/11, ACA and our conservation partners secured 4,632 acres on nine sites including one donated conservation easement, two land donations, two Crown land securements (protective notations) and four land acquisitions with a combined land value of approximately $7,500,000.

Partnerships

Alberta Fish & Game Association, Alberta Sustainable Resource Development, Fish and Wildlife Division and Lands Division, Beaver Hills Initiative, Cameron Development Corporation, David Bissett Foundation, Ducks Unlimited Canada, Edmonton and Area Land Trust, Government of Canada Habitat Stewardship Program for Species at Risk, Medicine Hat Fish and Game, Nature Conservancy of Canada, Pheasants Forever – Chinook Chapter and Calgary Chapter, private donors, Strathcona County

Habitat Securement Transactions in 2010/11

Name	Securement Tool & Partners	Size (ac)	Special Features
Cameron Development Corporation SE 18-65-1-W5M	A land donation to ACA from Cameron Development Corporation.	80	Located 3.5 km south of Hastings Lake, this site is a good example of knob-and-kettle topography that is typical of this area. The small wetlands provide habitat for waterfowl and beavers, while the stands of large spruce and aspen support a variety of bird species that rely on mature forest systems.
Clouston/Little Smoky River Uplands SW 34-074-22-W5M, E½ 35-074-22-W5M, NW 35-074-22-W5M, All 01-075-22-W5M, W½ 02-075-22-W5M, E½ 11-075-22-W5M, All 12-075-22-W5M	A partnership between ACA and Alberta Sustainable Resource Development to protect Crown land through protective notations.	1,280	This site is located 45 km north of Valleyview on Clouston Creek which enters into the Little Smoky River 1 km downstream. The slopes of this drainage and its habitat provide critical winter habitat for ungulates including elk, moose and deer. The addition of these lands expands this Conservation Site to 2,560 acres in size.
Golden Ranches All 31-051-20-W4M, NW 24-051-21-W4M, N½ 25-051-21-W4M, SW 25-051-21-W4M, E½ 35-051-21-W4M, N½ 36-051-21-W4M	A partnership land acquisition between ACA, Alberta Fish and Game Association, Beaver Hills Initiative, Ducks Unlimited Canada, Edmonton and Area Land Trust, Nature Conservancy of Canada and Strathcona County.	1,350	This site is located 27 km east of Edmonton. It includes 8 km of Cooking Lake shoreline. It provides important shorebird habitat and a multitude of hunting opportunities. The partners are planning to secure an additional 320 acres around the ranch home quarter for compatible use. This was an expansion of an existing Conservation Site.
Kingsland CE SW 23-038-25-W4M	A donated conservation easement to ACA.	74	Located 10 km east of Lacombe, this site is mostly native aspen parkland and is near the north bank of the Red Deer River.
Legacy Pt. NE 05-014-14-W4M	A partnership land acquisition between ACA, Pheasants Forever – Calgary Chapter, with generous support from David and Leslie Bissett Foundation.	100	This site is located approximately 21 km northeast of Vauxhall and consists of native prairie and tame grassland. Management activities will target habitat enhancements for upland game birds.
Silver Sage S½ 06-004-05-W4M	A partnership land acquisition between ACA, Government of Canada Habitat Stewardship Program for Species at Risk, Medicine Hat Fish and Game, and Pheasants Forever – Chinook Chapter.	312	This site is located 15 km south of Manyberries and consists of a mix of tame and native grasslands, as well as a wetland. It contains federally-designated critical habitat for greater sage grouse.
Silver Sage 2 NE 06-004-05-W4M, NE 05-004-05-W4M, N½ 04-004-05-W4M, SW 04-004-05-W4M, SW 02-004-05-W4M, NW 33-003-05-W4M, NW 34-003-05-W4M	A partnership land acquisition between ACA, Government of Canada Habitat Stewardship Program for Species at Risk, Medicine Hat Fish and Game, Pheasants Forever – Calgary Chapter and Chinook Chapter.	1,267	This site adjoins Silver Sage and consists of a mix of annual cropland and native grasslands. It contains federally-designated critical habitat for greater sage grouse. Management activities will target the restoration of the cropland portions back to native grass communities.
Thomson Park SW 23-038-25-W4M	A private land donation to ACA.	79	Located within the Hamlet of Fort Assiniboine, this site consists of upland, riparian and old growth forest. There is a steep ravine in the western portion of the property and a small ephemeral creek running north-south. The property is home to Cape May warblers, blackburnian warblers and great gray owls.
Weberville Pond NW 07-085-21-W6M	A partnership between ACA and Alberta Sustainable Resource Development to protect the remaining portions of this quarter through protective notations.	90	This site is located 16 km north of Peace River; it supports a fish access site and year-round trout fishery. The addition and protection of this land expands Weberville Pond Conservation Site to 150 acres in size.
TOTAL		4,632	

Management Plan Development

ACA is dedicated to efficiently managing Conservation Sites that we either hold title to or manage on behalf of the Crown. Development of management plans provides clear direction for the overall future management of these sites. These plans also act to streamline roles and responsibilities and other activities that are agreed upon by our conservation partners. ACA is currently striving to ensure that all new acquisitions have a completed and signed management plan within six months of purchase. We are also reviewing the status of management plans for other sites that we manage to ensure that management plans are complete and up to date. In 2010/11, we developed 53 management plans. Of these, 19 were "new acquisitions" (sites acquired since 2009) and 34 were sites acquired prior to 2009 that required plan completion, revision or update.

Partnerships

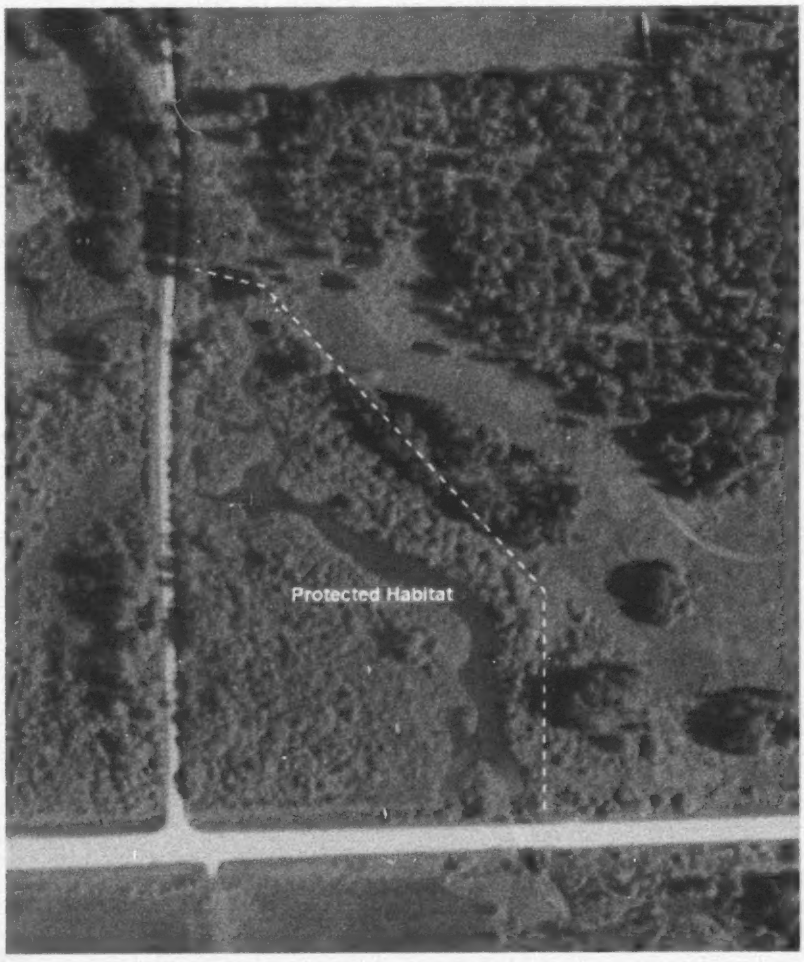
Alberta Fish & Game Association, Alberta Sustainable Resource Development, Beaver Hills Initiative, Cameron Development Corporation, County of Strathcona, County of Westlock, Ducks Unlimited Canada, Edmonton and Area Land Trust, MULTISAR, Nature Conservancy of Canada, Pheasants Forever – Chinook Chapter and Calgary Chapter, Shell Canada Energy, Suncor Energy Foundation

Streambank Fence Renegotiation Strategy

The Alberta Government's Buck for Wildlife Streambank Fencing Program was initiated in the 1970s to protect wildlife and fish habitat, as well as to provide public access to angling streams. ACA is currently responsible for honouring maintenance commitments of inherited landowner agreements, which has become a significant financial burden. Our goal for the project is to reduce annual programming costs, while continuing to protect riparian habitat and provide angler access to priority streams. Building on work from 2009/10, we implemented a pilot project for the Streambank Fence Renegotiation Strategy in 2010/11. We approached four landowners and signed two new lease agreements on the North Raven River protecting 17.7 acres of habitat with an annual cost of $1,327.50. We will continue with this project in 2011/12 as it has shown to be an achievable method of protecting riparian habitat while reducing financial burdens associated with fence maintenance.

Partnerships

Clearwater County, Dickson Fish and Game, landowners, Red Deer County, Trout Unlimited Canada – Central Chapter and Edmonton Chapter



Conservation Reports

The following Conservation Reports were completed and published in the 2010/11 fiscal year and are available on our website www.ab-conservation.com.

Blackburn, J. 2011. Crowsnest River drainage sport fish population assessment, 2010. Technical Report, T-2011-001, produced by the Alberta Conservation Association, Lethbridge, Alberta, Canada. 27 pp + App.

Ganton, B. and S. Wood. 2011. Camera Based Sport Fishery Surveys: Ethel, Floatingstone, Garner, and Hilda lakes, Alberta. Data Report, D-2011-008, produced by Alberta Conservation Association, Sherwood Park, Alberta, Canada. 31pp + App.

Hudson, V. 2011. Alberta Waterfowl Crop Damage Prevention Program, 2010. Data Report, produced by the Alberta Conservation Association, St. Paul, Alberta, Canada. 7 pp + App.

James, C., and P. Hvenegaard. 2011. Verification of effectiveness of spring conservation closure zones on North and South Wabasca lakes, Alberta, 2008-2010. Data Report, D-2011-003, produced by the Alberta Conservation Association, Peace River, Alberta, Canada. 12 pp + App.

Judd, C., and M. Rodtka. 2011. Abundance and distribution of bull trout in Elk Creek, Alberta, 2010. Data Report, D-2011-004, produced by the Alberta Conservation Association, Rocky Mountain House, Alberta, Canada. 13 pp + App.

Patterson, W.F. 2011. Do Hatchery Trucks Make Happy Anglers? Evaluating Entrenched Assumptions of Put-And-Take Fisheries. Master's thesis, Royal Roads University, Victoria, British Columbia, Canada. 39pp.

Ranger, M., and S. Webb, editors. 2010. Delegated aerial ungulate surveys, 2009/2010 survey season. Data Report, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 87 pp.

Turton, E., and B. Ganton. 2011. Northern pike and walleye sport fisheries at Winagami and Snipe lakes, Alberta, 2010. Data Report, D-2011-005, produced by Alberta Conservation Association, Sherwood Park, Canada. 18 pp + App.

Wood, S. and James, C. 2011. Abundance and population structure of walleye in Pigeon and Buck lakes, Alberta, 2010. Data Report, D-2011-002, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 15 pp + App.

Wright, K. D. 2011. Hay-Zama lakes waterfowl staging and bald eagle nesting monitoring program, 2010. Data Report, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 19 pp + App.

The following papers were published or submitted for publication elsewhere (peer-reviewed journals, books, and conference proceedings) and are not available on-line at this time.

Hamilton, S. and D. Manzer. 2011. Estimating Lek Occurrence and Density for Sharp-tailed Grouse. Pp. xxx-xxx in B. K. Sandercock, K. Martin and G. Segelbacher (editors). Ecology, conservation, and management of grouse. Studies in Avian Biology (vol. 39), University of California Press, Berkeley, CA. (In Press – publication Sept 2011).

Jones, P. F. and J. D. Yoakum. 2011. Where are all the pronghorn fawns: Is low fawn recruitment an issue revisited? Proceedings of the 24th Biennial Pronghorn Workshop

Patterson, W.F. and M.G. Sullivan. Evaluating entrenched assumptions of put-and-take-trout fisheries. Human Dimensions of Wildlife (in review).

All projects listed in this annual report have had a year-end summary report produced, which has been posted to our website and is available for public viewing. In cases where the project is complete and the level of information is considered substantial, a Conservation Report is produced. Conservation Reports are generally more comprehensive, are published in both electronic and hardcopy, and are numbered as part of ACA's Report Series.

Report A Poacher and Compensation Programs

Created more than 20 years ago, Report A Poacher (RAP) has become a widely known, well-used community-based program through which Albertans can help protect our wildlife, fish and natural habitats. Through its emphasis on ethical and responsible hunting and fishing behaviour, the program demonstrates the value and importance of conserving Alberta's wildlife and fish, and a positive image of resource users. RAP provides a toll-free phone number (1-800-642-3800) for people to report suspected illegal activity 24 hours a day, seven days a week.

The RAP program is delivered by ACA in partnership with Alberta Sustainable Resource Development (ASRD). The relationship between our organizations is clearly defined under a Memorandum of Understanding. For ACA, responsibilities include promotional and educational activities to maintain public awareness and understanding of poaching and the RAP program, as well as the administration of the program funds which are used by ASRD as reward payments. ASRD retains sole responsibility for liaising with informants, investigating reports and any enforcement actions

2010/11 Overview

- *8,940 total calls from the public to the RAP toll-free phone number*
- *1,563 calls related to the public reporting suspected illegal activity to our wildlife resources*
- *240 offenders charged with poaching*
- *$33,100.00 in rewards paid out to individuals whose call and information led to an arrest or fines*
- *Revised RAP logo to work with additional contact information in a wide scope of media and communications needs*
- *Renewed RAP website to include more in-depth information defining poaching and how to report suspicious activities*
- *Updated road signs installed across Alberta. New signs feature RAP logo in red and bright reflective background*
- *Developed new RAP brochure with tear-away information card and attended numerous outdoor recreation tradeshows across Alberta*

REPORT A POACHER
www.reportapoacher.com
1-800-642-3800

Compensation Programs

Compensation Programs are comprised of the Wildlife Predator Compensation and Shot Livestock Compensation programs. These programs provide compensation to producers whose livestock may have been killed or damaged as a result of predators (eagles, cougars, bears and wolves) or hunter activities. These programs are delivered by ACA in partnership with Alberta Sustainable Resource Development (ASRD). Like the Report A Poacher program, ACA is responsible for program promotion and compensation fund management, while ASRD is responsible for incident investigations and determination of payouts.

Wildlife Predator	Claims	Compensation
Eagle	0	$0
Cougar	21	$8,515.66
Black Bear	12	$9,556.19
Grizzly Bear	10	$8,878.08
Wolf	162	$165,111.43
Unknown Predator	3	$2,286.48
TOTAL	209	$195,326.29

Shot Livestock	13	$16,253.54

Mike Jokinen, Intermediate Biologist, ACA.
Preparing camera trap
photo: Robert Anderson

Our Granting Programs

Grant Eligible Conservation Fund

Funded by Alberta's hunters and anglers through license levies, the Grant Eligible Conservation Fund (GECF) supports a variety of projects each year which benefit our wildlife and fish populations, as well as the habitat they depend on.

In 2010/11, a decision was made by the GECF Committee to split the fund into two parts to allow for a more rigorous review procedure for the research applications. These are:

Part A: Conservation Support and Enhancement - Funds conservation activities by individuals, organizations, and communities that contribute to healthy fish and wildlife populations, to a healthy environment for fish and wildlife in Alberta, and to the understanding, appreciation and use of that environment.

Part B: Research - Funds high-quality research projects on wildlife, fish and habitat which inform the effective management of wildlife, fish populations, and habitat in Alberta.

2010/11 Overview

Conservation Support and Enhancement (Part A)

- *Received 71 applications in January 2010 requesting just over $1.3 million*
- *33 projects were funded with a total of $533,585*

Research (Part B)

- *Received 36 applications in November 2009 requesting just over $1 million*
- *14 research projects were funded with a total of $350,032.*

Please see GECF Conservation Partners for a full list of funding allocations.

2010/11 GECF Funding Priorities

To help guide applicants, ACA introduced Funding Priorities in 2009/10.The list of Funding Priorities was increased from six to 12 in 2010/11 and made available in the *Project Submission Guidelines for Funding in 2010/11*. The GECF also accepts applications that do not relate to these suggested areas, however, projects that address one or more of these priority areas have a better chance of being funded than those that do not.

1. Habitat enhancement activities specifically listed on provincial recovery plans for Alberta's endangered species (to be done in cooperation with recovery teams).

2. Site-specific enhancements of habitat, structures and facilities aimed at increasing recreational angling or hunting opportunities, improving habitat or increasing wildlife/ fish productivity on the site (i.e. planting/ seeding vegetation, development of new fisheries access sites, nest box initiatives, food plot trials and cover plot trials, spawning bed enhancement, culvert removals, etc.)

3. Urban fisheries development, including: initial evaluation of water quality aspects of existing ponds to determine their suitability for fish stocking; purchase of equipment required to ensure suitable water quality for fish stocking (e.g. aeration equipment); fish stocking in public ponds; promotion of an urban fishery (including natural water bodies).

4. Stewardship initiatives (e.g. ongoing maintenance of Conservation Sites or fisheries access sites; adopt-a-fence; property inspections for invasive weeds; manual weed control; grass mowing).

5. Impacts of non-native species on the persistence of native species.

6. Improvements and innovation in matching sportsmen with landowners (e.g. facilitating hunter access to depredating waterfowl, elk and deer).

7. Develop and validate inventory tools to determine the relative density and range of ungulate species using innovative techniques such as trail cameras or passive DNA samples.

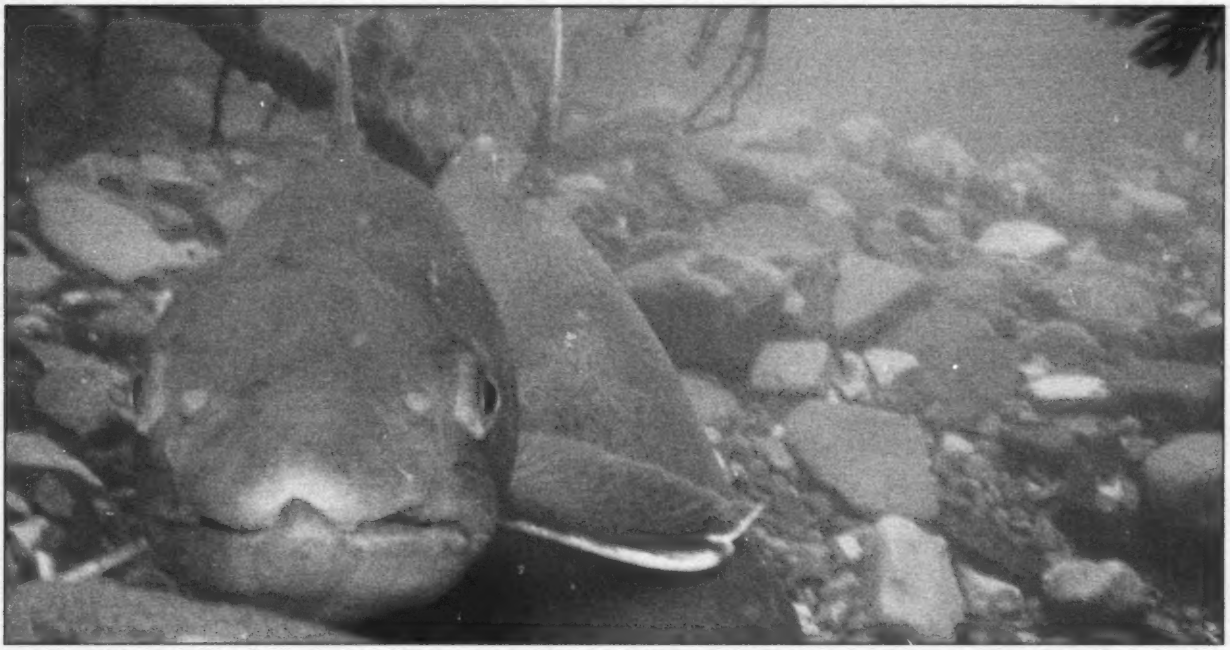
8. Evaluate the effect of pesticides or herbicides on upland game birds (sharp-tailed grouse, pheasant, gray partridge) in agricultural landscapes.

9. Evaluate the effect of recreational access (mode, timing, duration) on wildlife and fish populations and their habitat.

10. Investigation of methods for reducing the spread and/or impact of wildlife or fish-related diseases.

11. Evaluate the impact of various harvest management regimes on fish or wildlife populations (e.g. fish size limits, three-point or larger elk requirements, etc.)

12. Evaluate the social demographics of hunting and angling to determine the factors influencing the decision to become involved in hunting or angling and the reasons why people opt out in a particular year.



2010/11 GECF Recipients

Part A: Conservation Support and Enhancement

Small Grants Awarded
($3,000 and under)

Andrew Stiles, *Nest box deployment with youth to inspire stewardship*, $2,500

Bow Valley Habitat Development, *Willow and tree planting on Millennium Creek (Cochrane Scout Troop)*, $2,182.95

Nose Creek Watershed Partnership/Trout Unlimited Canada, *Nose Creek rehabilitation project*, $3,000

Sylvan Lake Fish and Game Association, *Niemela Reservoir 2010 project*, $2,975

Town of Taber, *Taber trout pond*, $2,200

Trout Unlimited Canada, *Aquatic invasive awareness campaign*, $2,838

Weaselhead/Glenmore Park Preservation Society, *Weed management in the Weaselhead*, $3,000

GECF Part A: Conservation Support and Enhancement

Large Grants Awarded
(over $3,000)

Alberta Fish & Game Association, *Operation Grassland Community*, $39,670

Alberta Fish & Game Association, *Pronghorn antelope migration corridor enhancement*, $44,077

Alberta Fish & Game Association, *Volunteer habitat lands stewardship*, $11,100

Baptiste, Island and Skeleton Lakes Watershed Management and Lake Stewardship Council (BISL), *Aerial videography - Riparian management area health and integrity assessment for Baptiste and Island Lakes*, $9,000

Beaverhill Bird Observatory, *Beaverhill Lake stewardship and monitoring*, $10,200

Bow Valley Habitat Development, *Modifications to a section of stream channel on Ranch House Spring 2010*, $3,385.72

Castle-Crown Wilderness Coalition, *Maintaining and restoring natural habitat in the Castle Wilderness,* $9,500.00

Delta Waterfowl Foundation, *ALUS demonstration project in the County of Vermilion River,* $15,000

Dickson Fish and Game Association, *Dickson Dam Site #7 Conservation Property - Habitat improvements,* $5,240

Eastern Irrigation District, *Partners in Habitat Development,* $25,000

Ghost Watershed Alliance Society, *Riparian and wetlands health assessment and inventory by Cows and Fish of critical areas in the Ghost Watershed,* $35,500

Lac La Biche County, *Lac La Biche watershed project,* $5,000

Lesser Slave Lake Bird Observatory, *Monitoring migratory and breeding birds in Alberta's Boreal Forest,* $25,000

Mountain View County, *Riparian area management improvements,* $20,000

Nature Alberta (Formerly Federation of Alberta Naturalists), *Public and volunteer engagement with Alberta's Important Bird Areas,* $34,073

Nature Alberta (Formerly Federation of Alberta Naturalists), *Riparian water quality improvement project,* $34,000

Northern Alberta Institute of Technology (NAIT), *Sturgeon River watershed habitat improvements,* $20,000

Red Deer County, *Off the Creek Program 2010,* $25,000

The Calgary Zoo, *Preservation and propagation of whooping cranes and sage grouse,* $8,500

Trout Unlimited Canada, *Crowsnest River channel reactivation project,* $24,000

Trout Unlimited Canada, *East Slopes creek conservation initiative,* $28,600

Trout Unlimited Canada, *Late fall fisheries investigation in diversion canals of Southern Alberta,* $7,000

West Central Forage Association, *Paddle River enhancement project - Phase 1,* $14,540

Wild Elk Federation, *Elk relocation,* $3,143

Willmore Wilderness Foundation, *Willmore Wilderness Park clean-up and stewardship initiative,* $18,360

Woodlot Extension Program/Woodlot Association of Alberta, *Riparian reforestation and wildlife habitat enhancement of Beaverlodge Watershed - Phase III,* $40,000

GECF Part B: Research

Large Grants Awarded
(over $3,000)

Calgary Zoo, *Using meta-population modeling to insure the effective conservation of northern leopard frogs,* $21,194

Canadian Wildlife Service, *Effects of oil and gas development on grassland birds in south-east Alberta,* $20,000

King's University College, *Conservation genetic analysis of Alberta peregrine falcons,* $11,700

King's University College, *Reproductive ecology of endangered populations of limber and whitebark pine in Alberta,* $15,000

Laval University, *Ecology, conservation, and population demography of mountain goats in Alberta,* $19,826

University of Alberta, *Does petroleum development affect burrowing owl survival, nest success, fledging rate or habitat use?,* $23,520

University of Alberta, *Cougar distribution and prey selection in south-west Alberta,* $32,700.00

University of Alberta, *Ecology and behaviour of grizzly bears (Ursus arctos horribilis) in response to open-pit mining and implications for management and conservation,* $31,000

University of Alberta, *Lynx cycles and barriers: Evaluating dispersal versus climate change in flatlining populations,* $27,500

University of Alberta, Dr. Cassady St. Clair, *Edmonton urban coyote project,* $35,952

University of Alberta, *Trumpeter swan population recovery in Alberta: Distribution, land-use and response to disturbance,* $37,000

University of Alberta, *Ecological effects of sport fish stocking and aeration in Boreal Foothills lakes (the FIESTA project),* $24,640

University of Lethbridge, *Effects of environmental change on stream temperature: implications for native salmonid species,* $30,000

University of Lethbridge, *Examining resiliency of bull trout populations to brook trout invasiveness,* $20,000

Grants in Biodiversity

The projects funded by this year's ACA Grants in Biodiversity are as wide and varied as the complex environments found across Alberta. Projects supported this year include bighorn sheep, bumble bees, sportfish, urban coyotes and bison.

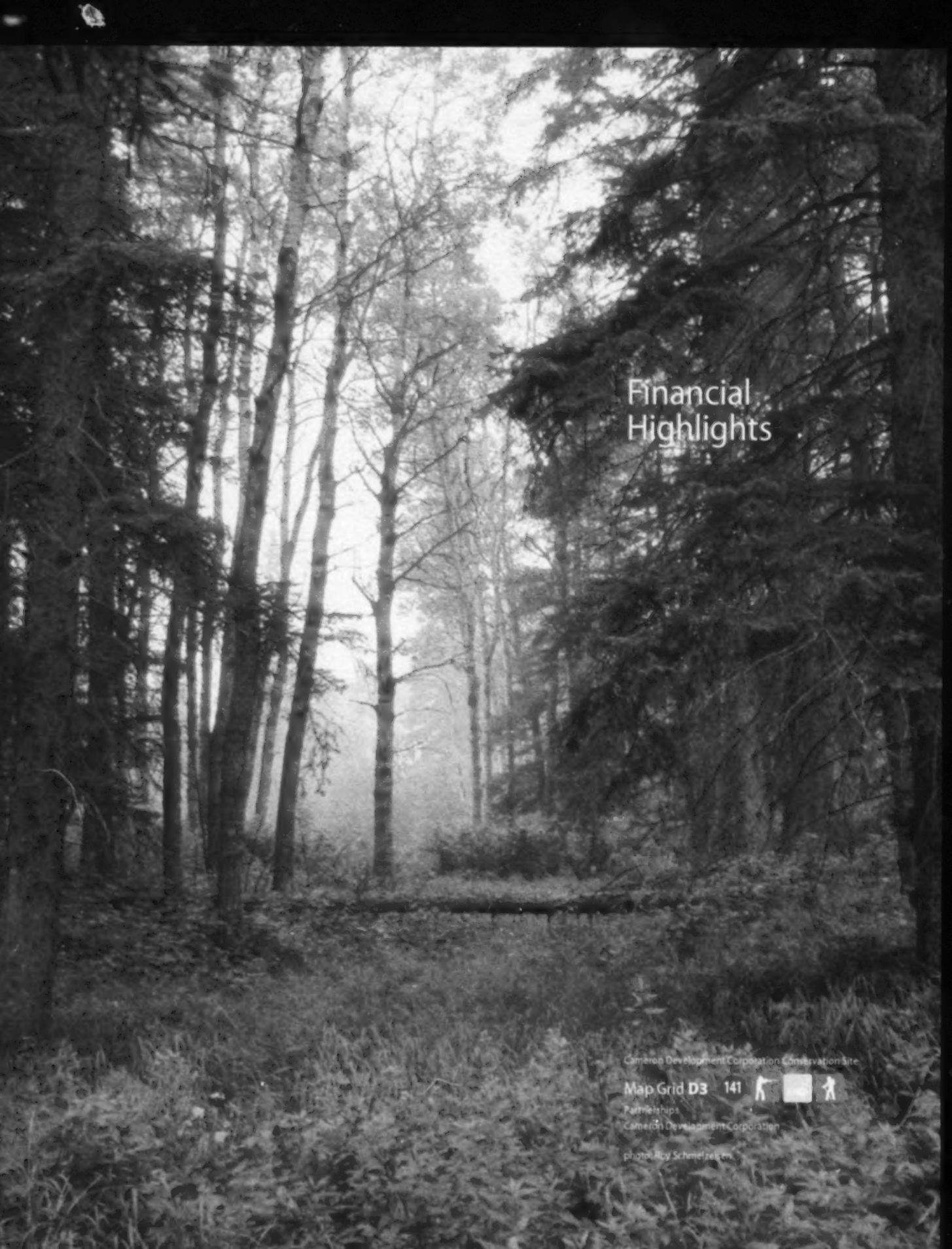
Biodiversity Grants totaling $215,810 are awarded and divided amongst 20 graduate students for the purpose of increasing the knowledge of flora and fauna in Alberta. The University of Alberta received 11 awards, with the University of Calgary claiming six prizes. Single awards also went to the University of Lethbridge, the University of British Columbia and the University of Montana.

The ACA Grants in Biodiversity program is funded by ACA and operated through the Alberta Cooperative Conservation Research Unit (ACCRU) – a partnership between the University of Alberta, the University of Calgary and the University of Lethbridge.

The research supported by the ACA Grants in Biodiversity ultimately aims to conserve, protect and enhance Alberta's fish, wildlife and natural habitats. Over the 17-year duration of the program, more than $3.6 million dollars has been awarded to 361 researchers.

2011 ACA Grants in Biodiversity Recipients

Recipient	Supervisor(s)	Institution	Project Title
Nils Anderson	Cynthia Paszkowski	University of Alberta	Does the presence of beavers increase biodiversity within wetlands in central Alberta?
Daniel Andres	Kathreen Ruckstuhl	University of Calgary	Mate choice in the Rocky Mountain bighorn sheep
Tanner Broadbent	Edward Bork	University of Alberta	Does variable defoliation and moisture interact to alter grass growth and subsequent native grassland diversity?
Julian Dupuis	Felix Sperling	University of Alberta	Landscape as a determinant of population structure, hybridization, and conservation in a species complex of charismatic butterflies in Alberta
Scott Eggeman	Mark Hebblewhite	University of Montana	Population dynamics of a partially migratory elk herd in a multi-predator ecosystem
Alexandria Farmer	Ralph Cartar	University of Calgary	Landscape effects on the distribution of bumble bees across their floral resources in response to clearcut logging, and their reproductive consequences
Taya Forde	Karen Orsel	University of Calgary	The role of Mycobacterium avium subspecies paratuberculosis in conservation herds of wood bison
Kathryn Kuchapski	Joseph Rasmussen	University of Lethbridge	Selenium exposure in streams draining reclaimed coal mines: Toxicity and effects on fish community composition
Seung-il Lee	John Spence	University of Alberta	The influence of aggregated retention patches on saproxylic beetle communities in boreal white spruce stands
Jamie McEwen	Sean Rogers and Jana Vamosi	University of Calgary	The environmental genomics of allopolyploidy in *Anemone multifida*
Jordan Messner	Rolf Vinebrooke	University of Alberta	Community recovery of mountain lakes stocked with exotic sportfish in the Canadian Rocky Mountains
Joshua Miller	David Coltman	University of Alberta	A conservation genomic assessment of bighorn sheep harvesting
Andrea Morehouse	Mark Boyce	University of Alberta	Manipulating ecological traps for grizzly bears in southwestern Alberta using attractive management
Maureen Murray	Colleen Cassady St. Clair	University of Alberta	Habitat selection, diet, mange (*Sarcoptes scabiei*), and conflict behaviour in urban coyotes (*Canis latrans*)
Jessica Reilly	Lee Foote	University of Alberta	Conservation genetics and population modeling of Alberta Arctic grayling (*Thymallus arcticus*)
Crisia Tabacaru	Nadir Erbilgin	University of Alberta	Playing with fire: The effect of prescribed burns on mountain pine beetle populations
Kristine Teichman	Scott Nielsen and Jens Roland	University of Alberta	Trophic cascades in the Aspen Parkland: Effects of high ungulate density on focal plant, butterfly, bee pollinator and bird species
David Toews	Darren Irwin	University of British Columbia	Migratory orientation in a "migratory divide": The yellow-rumped warbler hybrid zone
Guilherme Verocai	Susan Kutz	University of Calgary	Biodiversity of protostrongylidae nematodes in threatened woodland caribou (*Rangifer tarandus caribou*) in Alberta
Lindsay Zink	Ralph Cartar	University of Calgary	Native pollinators in the southern Alberta irrigated agricultural landscape: Concurrent effects of habitat availability and competition with managed bees


Financial
Highlights
Cameron Development Corporation Conservation Site
Map Grid D3 141
Partnerships
Cameron Development Corporation
photo: Roy Schmeltzer

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KRP LLP
KINGSTON ROSS PASNAK

June 8, 2011
Edmonton, Alberta

Independent Auditors' Report

To the Members of Alberta Conservation Association:

The accompanying summary financial statements, which comprise the summary statement of financial position as at March 31, 2011, and the summary results from operations for the year then ended, are derived from the audited financial statements of the Alberta Conservation Association for the year ended March 31, 2011. We expressed an qualified audit opinion on those financial statements in our report dated June 8, 2011.

The summary financial statements do not contain all the disclosures required by Canadian generally accepted accounting principles. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of Alberta Conservation Association.

Management's Responsibility for the Summary Financial Statements
Management is responsible for the preparation of a summary of the audited financial statements on the basis described in Note 1.

Auditor's Responsibility
Our responsibility is to express an opinion on the summary financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, "Engagements to Report on Summary Financial Statements."

Opinion
In our opinion, the summary financial statements derived from the audited financial statements of Alberta Conservation Association for the year ended March 31, 2011 are a fair summary of those financial statements, on the basis described in Note 1. However, the summary financial statements are subject to conditions equivalent to those of the audited financial statements of the Alberta Conservation Association for the year ended March 31, 2011, upon which we issued a qualified audit opinion.

Our qualified audit opinion, as described in our report dated June 8, 2011 is based on the fact that in common with many not-for-profit organizations, the Association derives some of its revenue from partner contributions and donations, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, our verification of these revenues was limited to the amount recorded in the records of the Association and we were not able to determine whether any adjustments might be necessary to partner contributions, excess of revenue over expenses, current assets, deferred contributions and net assets.

Kingston Ross Pasnak LLP

Kingston Ross Pasnak LLP
Chartered Accountants

Summarized Financial Statements

ALBERTA CONSERVATION ASSOCIATION

Year ended March 31, 2011

	2011	2010
RESULTS FROM OPERATIONS		
REVENUES		
Fees and assessments	$ 10,352,775	$ 10,544,363
Partner contributions	2,585,367	1,879,567
Other	1,301,727	698,643
Creative sentencing	940,000	-
Unrealized gain on investments	493,973	1,210,013
Loss on sale of assets	(55,301)	(29,751)
	15,618,541	14,300,835
EXPENDITURES		
Salaries and benefits	6,565,939	5,630,108
Grants	2,834,282	1,827,460
Contracted services	1,101,185	1,029,829
Rentals	953,806	851,739
Office and sundry	851,780	796,050
Travel	786,502	768,211
Materials and supplies	776,642	567,053
Amortization	649,686	607,908
Advertising	392,184	359,779
Landowner agreements	105,333	89,230
	15,017,339	12,527,367
EXCESS OF REVENUES OVER EXPENDITURES	**$ 601,202**	**$ 1,773,468**
FINANCIAL POSITION		
ASSETS		
Current assets	$ 868,241	$ 863,582
Long-term investments	5,694,715	6,301,066
Property, plant and equipment (net of accumulated amortization)	15,015,336	12,739,810
	$ 21,578,292	$ 19,904,458
LIABILITIES		
Current liabilities	$ 5,385,133	$ 4,544,254
NET ASSETS		
Invested in property, plant and equipment	15,015,336	12,739,810
Internally restricted	649,046	250,899
Unrestricted	528,777	2,369,495
	16,193,159	15,360,204
	$ 21,578,292	$ 19,904,458

APPROVED BY THE BOARD

Director Director

Basis of Presentation (Note 1)
Management is responsible for the preparation of the summary financial statements. The summary financial statements are comprised of the summary statement of financial position and the summary results from operations, and do not include any other schedules, a summary of significant accounting policies or the notes to the financial statements. The summary statement of financial position and the summary results of operations are presented with the same amounts as the audited financial statements, but certain balances have been combined and all note referencing has been removed.

Alberta Conservation Association

Financial Highlights

Summarized Financial Statements

In 2010/11, ACA received $10,352,775 in levy revenue from hunting and angling licenses, which is a 1.8% ($195,640) decrease from the previous year. The decrease in levy revenue is attributed primarily to a $376,499 decline in angling licenses, offset partially by an increase in hunting license revenue of $180,859. We assume that poor spring and summer weather on long weekends was a key contributor to the decline in angling license sales.

Cumulatively, our Wildlife, Fisheries, Land Management and Communications programs had expenditures of totaling $12,399,584 (including $2,733,995 in land purchases and donations), meaning that approximately 120% of levy value collected went back into conservation of Alberta's resources.

ACA received more than $4.8 million in non-levy revenue. These funds came from a variety of donors, including individuals, corporations, granting foundations, the Federal Government, and other conservation organizations.

Once again, we have minimized our administration costs to less than 13% of revenue.

EXPENDITURES BY PROGRAM

Often stakeholders want to determine what funds are being directed towards their particular passion. When examining the Expenditures by Program, please keep in mind that the numbers shown are somewhat arbitrary and do not necessarily represent all projects that may relate to a particular program area. For example, the Fisheries program had expenditures of approximately $2.3 million (approximately 23% of levy revenue), but this does not include our riparian fencing or fisheries access site maintenance projects; these have been budgeted within the Land Management program.

REVENUE BY SOURCE

32% of ACA's total operating budget was generated from non-levy sources ($4,827,094). This represents a decrease of approximately $1.3 million in non-levy revenue over 2009/10 which is attributed directly to fewer large donations as compared to the previous year. However, despite the lower value of land donations received, we did end the year with an additional 4,300 acres conserved for future generations (an increase of 500 acres over last year's total).

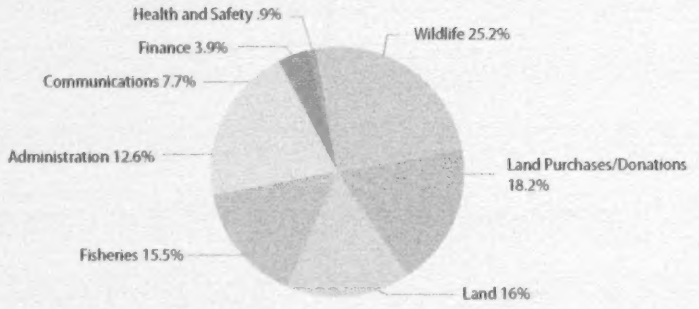
2010/11 Overview

- *$10,352,775 received from levies on hunting and fishing licenses*
- *$4.8 million received in non-levy revenue*
- *$12,399,584 in levy value directly applied towards the conservation of Alberta's wildlife, fisheries and habitat*
- *Administration costs kept to 12.6% of revenue*

The pie charts provide a summary of the expenditures in each program area. We encourage you to review the entire Annual Report to gain a greater understanding of the conservation projects undertaken within each program, and how they may relate to your particular passion.

Expenditures By Program

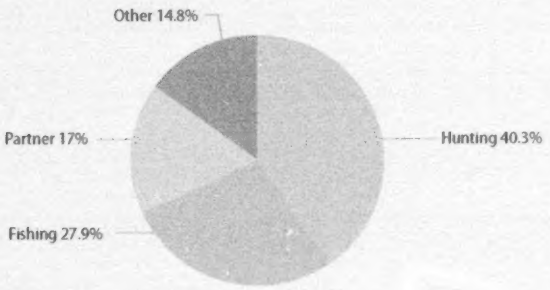
Wildlife	3,776,503
Land	2,406,836
Land Purchases/Donations	2,733,995
Fisheries	2,325,816
Administration	1,899,206
Communications	1,156,434
Finance	586,652
Health and Safety	131,897
TOTAL	**15,017,339**



Revenue By Source

Hunting	6,111,344
Fishing	4,241,431
Partner	2,585,367
Other	2,241,727
TOTAL	**15,179,869***

*Not including unrealized gains on investments.



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